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# 1982

## Census of Construction Industries

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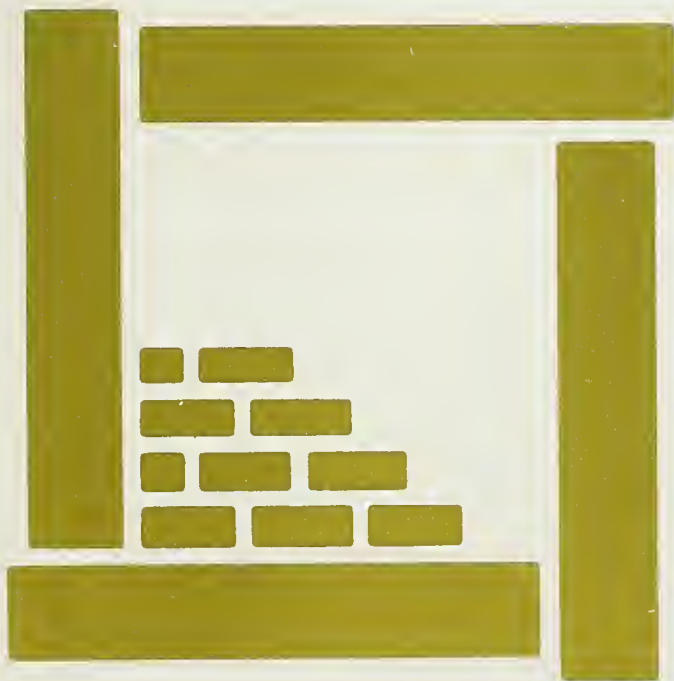
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INDUSTRY SERIES

### Roofing and Sheet Metal Work Special Trade Contractors

Industry 1761

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The publications  
from the 1982 Economic and  
Agriculture Censuses are dedicated  
to the memory of Shirley Kallek,  
Associate Director for Economic Fields.  
During her career at the Bureau of the  
Census (1955 to 1983), she continually  
directed efforts to improve  
the timeliness and accuracy of  
economic statistics.

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FINAL REPORT  
INDUSTRY SERIES

# 1982 Census of Construction Industries

CC82-I-1 to 28  
Changed October 1986

## CHANGE SHEET

This revision is to table 4 in the original publications for Industry Series CC82-I-1 to 27 and table 8 for Industry Series CC82-I-28. In the stub, change 1982 (line 8) to read 1981 and 1981 (line 12) to read 1982.



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# 1982

## Census of Construction Industries

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CC82-I-18

INDUSTRY SERIES

### Roofing and Sheet Metal Work Special Trade Contractors

Industry 1761

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Issued December 1984



**U.S. Department of Commerce**  
**Malcolm Baldrige**, Secretary  
**Clarence J. Brown**, Deputy Secretary  
**Sidney Jones**, Under Secretary for  
Economic Affairs

**BUREAU OF THE CENSUS**  
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### CONSTRUCTION DIVISION

Leonora M. Gross, Chief

**ACKNOWLEDGMENTS**—Many persons participated in the various activities of the 1982 Census of Construction Industries. Primary direction of the program was performed by Shirley Kallek, Associate Director for Economic Fields (until May 1983), Charles A. Waite, her successor, and Michael G. Farrell, Assistant Director for Economic and Agriculture Censuses (until August 1984), and John H. Berry, his successor.

This report was prepared in the Construction Statistics Division under the general direction of Leonora M. Gross, Chief. Alan I. Blum, Assistant Division Chief for Industry Surveys, was responsible for the overall management of the census of construction industries. He guided the planning and implementation of the project and coordinated activities with other divisions.

A. William Visnansky supervised the preparation of this report. Barbara J. Hadden, Edward R. Glover, Otto G. Ricci, Marie Rustin-Sanhueza, and Shirley M. Baker made important contributions in such areas as developing specifications, procedures, and resolving problems.

The computer processing system was developed and coordinated under the direction of Barbara M. Walter. Richard W. Swartz made significant contributions to the planning and development of the computer programs, and Herbert S. Isham was responsible for the implementation of those programs. The computer programs were also developed and written by John Sibley, Clifford Jordan, Linda M. Mersch, Adele Cerrelli, and Dan G. Sansbury. Mary D. Brady was responsible for most of the data preparation specifications and procedures. Matthew R. Golas was responsible for the coordination with the Computer Services Division. Johnnie Pringle was responsible for production control of the computer processing. Under the direction of Jesse Pollock, Edward K. Ricketts and Dennis K. Duke developed the sampling plans, some computer processing specifications, and quality control procedures.

Systems and procedures for mailout, receipt, correspondence, data input, industry classification, other clerical processing, administrative record processing, and quality control, along with the associated electronic computer programs, were developed in the Economic Surveys Division, W. Joel Richardson, Chief.

Planning, design, review, and composition of report forms were performed in the Administrative Services Division, Robert L. Kirkland, Chief.

Publication planning, design, editorial review, composition, and printing procurement were performed in the Publications Services Division, Raymond J. Koski, Chief.

Geographic coding procedures and associated computer programs were developed in the Geography Division, Robert W. Marx, Chief.

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## ECONOMIC CENSUSES OVER TIME

The early beginnings of America's industrial output were first measured in the United States in the 1810 Decennial Census and again in 1820, when questions on manufacturing were included with those for population. Beginning with the 1840 Decennial Census, there were enumerations of manufactures and mineral industries at 10-year intervals up to and including the year 1900 for manufactures and 1940 for mineral industries. The latter census was taken again for 1954, 1958, 1963, and 1967.

Because of the increasing dominance of manufacturing in the early 20th century, Congress directed that quinquennial censuses of manufactures be taken beginning in 1905. However, from 1919 through 1939, these censuses were conducted every 2 years. The need for war-related current surveys in the early 1940's postponed the next census of manufactures until 1948 (for 1947). That census was again taken for 1954, 1958, 1963, and 1967.

Retail and wholesale trade data were first collected in 1930, and in 1933 information on selected service industries was added to the data-collection operation. These business censuses, as they were called, were again taken for 1935, 1939 (as part of the 1940 decennial program), 1948, 1954, 1958, 1963, and 1967.

Information on construction industries was first obtained in 1930 and again for 1935 and 1939. Data for the full spectrum of construction industries were not gathered again until 1968 (for 1967).

The need for transportation data to supplement information available from existing governmental or private sources was recognized by Congress in the late 1950's and early 1960's. The census of transportation (consisting of several surveys) was first taken for 1963 and again for 1967.

Since 1967, all of the above censuses have been taken quinquennially as part of the Census Bureau's economic census program. (For the 1977 censuses, the coverage of the service

industries was broadened from "selected services" to all services, except religious organizations and private households. A total of 41 additional four-digit standard industrial classifications<sup>1</sup> (SIC's) in 7 SIC major groups was added to the scope of the census. While most of the industries included for the first time for 1977 were covered again for 1982, some were not, i.e., hospitals; elementary and secondary schools; colleges, universities, and professional schools; junior colleges and technical institutes; labor unions and similar labor organizations; and political organizations.)

The first manufacturing census for an outlying area was conducted in Puerto Rico for the year 1909. Thereafter, with the exception of 1929, a census was taken at 10-year intervals through 1949. The first censuses of retail trade, wholesale trade, and selected service industries in Puerto Rico were conducted for 1939. These censuses also were taken for the years 1949, 1954, 1958, 1963, and 1967. A census of construction industries was first introduced in Puerto Rico for 1967. These censuses of Puerto Rico have been taken since then for the years 1972, 1977, and 1982.

Censuses of manufactures, retail trade, wholesale trade, and selected service industries were conducted in Guam and the Virgin Islands of the United States for 1958, 1963, 1967, 1972, 1977, and 1982. Censuses of mineral industries were taken in the Virgin Islands of the United States for the years 1958, 1963, and 1967 but not since that time. A census of construction industries was also undertaken in these areas for 1972, 1977, and 1982.

Retail trade, wholesale trade, selected service industries, manufacturing, and construction industries were canvassed for the first time in the Northern Mariana Islands in 1983 (for 1982).

For 1982, the economic censuses and agriculture censuses were conducted concurrently.

## USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source for facts about the structure and functioning of the Nation's economy and provide essential information for government, business, industry, and the general public. They provide an important part of the framework for such composite measures as the gross national product, input-output measures, indexes of industrial production, and indexes measuring productivity and price levels. Information from the censuses is used to establish sampling frames and as benchmarks for current surveys of business activity, which are essential for measuring short-term economic conditions.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No.041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.



State and local governments use census data to assess business activities within their jurisdictions. The private sector uses the data to forecast general economic conditions; analyze sales performance; lay out sales territories; allocate funds for advertising; decide on locations for new plants, warehouses, or stores; and measure potential markets in terms of size, geographic areas, kinds of business, and kinds of products made or sold.

Following every census, thousands of businesses and other users purchase reports. Likewise, census facts are widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. All 1982 data are available on microfiche from the U.S. Government Printing Office and most data on computer tape from the Census Bureau. Finally, the more than 50 State Data Centers also are suppliers of economic census statistics.

## **AUTHORITY AND SCOPE OF THE ECONOMIC CENSUSES**

The economic censuses are required by law under title 13 of the United States Code, sections 131, 191, and 224, which directs that they be taken at 5-year intervals for the years ending in 2 and 7. The 1982 Economic Censuses covered manufacturing, mining, construction industries, retail trade, wholesale trade, service industries, and selected transportation activities. Special programs also cover minority-owned and women-owned businesses. The next economic censuses are scheduled to be taken in 1988 for the year 1987.

## **METHOD OF ACCOUNTING AND TIME COVERED**

For the census report, respondents could use any system of accounting by which they maintained their books. Therefore, reports could be based on cash, accrual, or completion of contract methods of accounting.

A report was supposed to cover the calendar year 1982. If that involved considerable costs, fiscal year reporting was permitted if it did not produce great differences. However, all payroll and employment figures had to be reported for the calendar year.

## **CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION**

The 1982 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property into lots as defined in the 1972 Standard Industrial Classification (SIC) Manual.<sup>1</sup> This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

**Contract construction**—The SIC manual defines construction in three broad types of activity: (1) building construction by general contractors, (2) other construction by general contractors, and (3) construction by special trade contractors.

1. **Building construction by general contractors**—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other projects of a similar character.
2. **Other construction by general contractors**—Often referred to as heavy construction contractors, these contractors are primarily engaged in the construction of highways, streets, bridges, and tunnels; docks and piers; dams and water projects; sewage collection, treatment, and disposal facilities; storm sewer systems; air fields; and other heavy construction which involves either earth moving or the erection of structures and appurtenances, other than buildings.
3. **Construction by special trade contractors**—Special trade contractors are primarily engaged in specialized construction activities such as plumbing, painting, electrical work, carpentry, etc.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

**Construction on their own account, for sale**—Operative builders are primarily engaged in constructing buildings or other structures on their own account, acting as their own general contractor. These structures are generally sold when completed. Investment builders, primarily engaged in construction on their own account for rent or lease, were not included within the scope of the construction census.

**Subdividers and developers, except cemeteries**—The SIC manual defines subdividers and developers, except cemeteries, as establishments engaged in subdividing real property into lots, except cemetery lots, and in developing it for resale on their own account or for others.

In this system, each establishment is assigned an industry code on the basis of its major activity.

Each establishment receiving a questionnaire was requested to report the percent of total business receipts for each kind-of-business activity engaged in during 1982. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction receipts to total business receipts was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities, but in only a few instances do the SIC industry categories take into consideration combinations of activities. An example is SIC 1711, which includes establishments primarily engaged in plumbing, heating, air conditioning, ventilation, and refrigeration work. It is necessary, however, to assign a single industry code to the establishment based on its major activity.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.



Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities.

The structure of the Standard Industrial Classification System makes it possible to classify or tabulate establishments by major group (two-digit), industry group (three-digit), or industry (four-digit) according to the degree of detail available and needed.

## ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business which has been established for the management of more than a single project or job and is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to, estimating, bidding, scheduling, purchasing, supervising, and operating the actual construction work being conducted at one or more construction sites.

Exceptions to the "relatively permanent office" rule were that: (1) in case of joint ventures, a separate establishment report was required covering the joint venture entity even though established to undertake only a single project; and (2) to the extent that separate legal entities were set up to carry out only a given project or part of a project, then a separate establishment report was also required for each legal entity.

To the extent that several companies shared or operated out of a single office or place of business, each such legal entity engaged in construction was considered a separate establishment and each was requested to file the necessary "establishment" report covering the activities it conducted in or from that common office.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1982.

Separate construction reports were not required for each project or construction site. Aggregated information was included in the report of the construction establishment responsible for the work of the construction projects and sites.

If an establishment engaged in two or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, construction, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1982 gross receipts from construction activities exceeded the gross receipts from each of its other activities.

An establishment is not necessarily identical with a "company" or "enterprise," which may consist of one or more establishments. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

Construction businesses with no payroll during 1982 (nonemployers) were not required to file census reports. Collection and tabulation of data for these businesses are described in the section on "Sample Design." Foreign construction activities were not included in this census.

## SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES

The firms included in the 1982 Census of Construction Industries were identified as part of an operation common to all 1982 Economic Censuses. Construction firms were divided into employers (firms with payroll) and nonemployers (firms without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government based on information supplied directly to the agencies.

### Employer Firms

**Developing the sampling frame for employer firms**—This operation started with obtaining a list of all construction firms in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of firms engaged in business activities in the United States. The file contains the name, address, and form of ownership of each firm and also indicates whether or not the firm is subject to the Federal Insurance Contributions Act. Each firm in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each firm. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative-record data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer firms. However, for the 1982 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those firms which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment firms and large single-establishment firms. Thus, the 1982 Economic Census list for single-establishment employer firms was obtained from the IRS-SSA, but the list of establishments of multi-establishment employer companies was obtained directly from those companies in the COS.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a firm to the proper economic census, but there were a number of firms for which this information was inadequate or unavailable. A special form, NC-9923, General Report, was mailed to all such firms, requesting information on the nature of the firm's activities. From the information reported, the firm was given an industrial classification code and assigned to the appropriate economic census. Since construction firms found in this way were identified as such, only after the regular census mailing had taken place, they were treated as a supplement to the basic list.



For 1982, some data will be published for Standard Consolidated Statistical Areas (SCSA's) and selected Standard Metropolitan Statistical Areas (SMSA's). Therefore, each establishment was assigned to an SMSA code or to the balance of a State. The balance of the State was considered to be a separate cell for the selection process. In States where none of the SMSA's had more than 500,000 inhabitants in the 1970 Decennial Census, all establishments were assigned to the balance of the State.

**Selecting the employer sample**—A construction universe of about 464,000 single establishment employer firms and 6,500 multiestablishment employers, accounting for another 13,000 construction establishments, was developed by the procedures described above. From this universe, a sample of 172,000 employer establishments was selected. This sample was generally organized by standard industrial classification (SIC) in State sequence. The sample was designed to provide publishable estimates for the most construction industries at the State and selected SMSA level. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with the payroll equivalent of 20 employees or more, and a sample of single-establishment companies with less than 20 employees. There were three SIC's for which this standard plan was not used: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

The number of establishments classified in each of these three industries is very small and consequently, all single-unit establishments in these three industries were included in the sample. For sampling purposes, the number of employees was estimated from the 1981 payroll data in the administrative records, using an industry average wage per employee. The sampling was accomplished using a systematic method within each four-digit SIC. If the SIC code for an establishment was not complete, it was sampled as part of a two-digit group (e.g., 1520 was sampled as 1500, 1620 as part of 1600) except for non-classifiable cases in two-digit group 17. These were sampled as part of 1799 which is Special Trade Contractors, Not Elsewhere Classified. For the establishments with less than 20 employees, the sample was selected by sorting the establishments into State by SMSA by SIC by payroll sequences, and drawing a systematic sample of at least two establishments within each cell, with the probability of selection being proportional to the 1981 payroll. If the State-SMSA-SIC cell had two or less establishments in the frame, all establishments were selected (a 100-percent sample). A 100-percent sample was taken of the construction firms identified from the NC-9923, General Report, and of the transfers from other census trade areas. These latter cases were identified during the processing stages. These were caused either by changes of activity in the firm since the last updating of the classification file, or errors in the mailout classification. These cases were all added to the construction census, with certainty.

**Estimation procedures for 1982 and 1977 data**—Since all larger employer firms and some smaller ones were included in the census, sample estimation was required only for the universe of firms not selected with certainty. The published statistics are the totals of the estimates for the sampled firms and the

aggregates for the certainty (larger) firms. All estimates for 1982 and 1977 published here are simple unbiased estimates of the form:

$$x'_c = \frac{\sum_{i=1}^{n_c} x_i}{n_c}$$

where:  $x'_c$  is the simple unbiased estimate of a characteristic for a publication cell.

$x_i$  is the reported value of a characteristic for an individual establishment in the publication cell.

$p_i$  is the selection probability of that firm.

$n_c$  is the number of firms in the sample for the cell.

This method of estimation was used for all 1982 and 1977 characteristics. Before this formula was applied, it was necessary to convert into dollars those distributions of construction receipts which had been reported by the establishments as percentages—construction receipts by type of project, location of project, etc.

**Reliability of employer statistics**—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimates directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Although relative standard errors have been calculated for all of the published statistics, they are shown for each statistic only in the tables presenting detailed statistics. The other tables show relative standard errors only for some characteristics because of lack of space.

Separate measures of reporting and processing errors are not available. However, estimates which were subject to large errors of these types are likely to have been detected and corrected, or withheld from publication in the process of the review of the data for reasonableness and consistency. Other specific qualifications of the published data are indicated in footnotes to the tables.

The statistics in this report were based on data received by the time of final publication. Data were imputed for



establishments that did not report by that date. Selected establishments were contacted again to obtain as much information on the telephone as possible. Late data received in early 1984 were substituted for imputed data when the difference between the two was significant. Some publication cells in which more than 50 percent of the data were imputed have been suppressed.

## Nonemployer Firms

**General**—As described earlier, the information derived from the business income tax returns of all firms was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with firms without payroll were treated as nonemployers. The nonemployer construction firms were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return. In 1982, this group accounted for 60 percent of the total number of construction establishments, but accounted for only 8 percent of all business receipts of all construction establishments.

**Qualifications to the nonemployer data**—Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.

## CENSUS REPORT FORMS

Information for the 1982 Census of Construction Industries was obtained from employer establishments primarily through the use of eight questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the three two-digit SIC groups (15, 16, and 17), and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted most of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were solicited from construction trade associations and appropriate advisory groups. The Census Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

## DATA PROCESSING

The 1982 census report forms were mailed out in December 1982. Collection of these report forms, also by mail, was essentially completed in July 1983. They were mailed from and

returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters in Washington, D.C.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding) and imputation for missing items or for the small number of reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

## GEOGRAPHIC CLASSIFICATION

Information for the 1982 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. Separate State codes were assigned based on this information.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected SCSA's and SMSA's.

## DUPLICATION IN RECEIPTS

The aggregate of construction receipts reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work (and the receipts) of one firm may be subcontracted to other construction firms and also be included in the subcontractors' receipts. To avoid this duplication, a "net construction receipts" figure has been derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts.

Duplication in receipts between other construction and non-construction industries results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is



defined in the 1982 Census of Construction Industries as equal to all business receipts less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, value added is defined as equal to all business receipts less land receipts, payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels.

## SPECIAL TABULATIONS

Special tabulations of data collected in the 1982 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies), as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, D.C., 20233.

To discuss a special tabulation before submitting specifications, call 301-763-5435.

## RELATIONSHIPS OF THE ECONOMIC CENSUSES TO CURRENT SURVEYS

The Census Bureau also conducts current surveys (monthly, quarterly, and annually) to keep abreast of the rapid changes in business conditions, new processes, new materials, and shifting demands of goods and services. The census universe provides the sampling frame, weights, and benchmarks on which some of these current surveys are based. The accuracy of the measures derived from these current surveys is directly related to the completeness of information provided in the censuses.

## COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1982 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas, the construction census figures cover both new construction and

maintenance and repair work, but only for establishments classified in the construction industry. Force account construction activity—construction work performed by the labor force of a nonconstruction company for itself, or by other entities (Federal, State, or local governments) for themselves, or by property owners for themselves—probably accounts for more than half of the difference in the data of the two series of reports. Other factors contributing to the difference are that the census data do not include: (1) the value of materials supplied by the owners of projects, (2) the value of separate architectural and engineering services and, to a lesser extent, (3) the value of construction work performed for others by firms outside the scope of construction (manufacturers who install, lumber yards and other businesses, etc.).

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology. Their effect is not fully known.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

- \* Sampling error exceeds 40 percent.
- \*\* All employees (average) is the sum of construction workers during pay period including 12th of March, May, August, and November divided by 4, added to all others, March 12th.
- Represents zero.
- † Represents total construction receipts less payments for construction work subcontracted to others. (See Duplication in Receipts.)
- †† Represents all business receipts less payments for construction work subcontracted to others, and payments for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from "all business receipts." (See Duplication in Receipts.)
- ‡ Possible duplication in data. (See Duplication in Receipts.)
- (D) Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
- (NA) Not available.
- (S) Withheld because estimate did not meet publication standards on the basis of either the response rate, associated standard error, or a consistency review.
- (W) Greater than zero but less than 1 percent.
- n.s.k. Not specified by kind.

# Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employ- ment size	By receipts size	By type, class, ownership, kind of business, and location of construction <sup>1</sup>	By speciali- zation in types of construction
Assets and depreciation (gross book value):						
Beginning of year—structures, machinery and equipment . . . . .	3					
End of year—total . . . . .	1, 3	1	5	6		
End of year—structures, machinery and equipment . . . . .	3					
Depreciation charges during the year— structures, machinery and equipment . . . . .	3					
Capital expenditures:						
Total capital expenditures . . . . .	1, 3	1	5	6		
New structures—machinery and equipment . . . . .	3					
Used structures—machinery and equipment . . . . .	3					
Communication services, payments for . . . . .	2					
Employees:						
All employees—average number . . . . .	1, 2	1	5	6		8
Construction workers—average number . . . . .	1, 2, 9					
Other employees—March . . . . .	2					
Employer costs for fringe benefits—legally required and voluntary expenditures . . . . .	2					
Establishments:						
Number in business at end of year . . . . .	2					
Number in business during the year . . . . .	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
Total . . . . .	1, 2, 9	1, 9	5	6		
Quarterly . . . . .	2, 9	9				
Inventories . . . . .	4					
Materials, components, supplies, and fuels— payments for . . . . .	1, 2	1	5	6		
Payroll:						
First quarter, all employees . . . . .	2					
Annual:						
All employees . . . . .	1, 2	1	5	6		8
Construction workers . . . . .	1, 2	1				
Other employees . . . . .	2					
Power, fuels, and lubricants—payments for . . . . .	2					
Profile of the industry—selected industry averages . . . . .	12					
Proprietors and working partners . . . . .	2					
Ratios, State . . . . .	13	13				
Receipts:						
All business receipts . . . . .	2		5	6	11	
Construction receipts, total . . . . .	1, 2, 4	1	5	6	2, 7, 10	8
For work subcontracted in from others . . . . .	2					
Other business receipts and land receipts <sup>2</sup> . . . . .	2					
Net construction receipts . . . . .	1, 2	1	5	6		8
Value added . . . . .	1, 2	1	5	6		8
Rental payments:						
Total . . . . .	1, 2	1	5	6		
For machinery and equipment . . . . .	2					
For structures . . . . .	2					
Repairs to structures and related facilities . . . . .	2					
Repairs to machinery and equipment . . . . .	2					
Storage capacity for fuels <sup>3</sup> . . . . .	2					
Subcontract work to others, payments for . . . . .	1, 2	1	5	6		8

Note: Data for 1977 and earlier years are also available in some of these tables.

<sup>1</sup>Type—buildings, roads, etc. Class—new construction or maintenance and repair work. Ownership—private or government owned.

<sup>2</sup>Other business receipts and land receipts are shown separately for SIC's 1531 and 6552 only.

<sup>3</sup>Storage capacity for fuels shown only for SIC's 1611, 1622, 1623, and 1629.







# Roofing and Sheet Metal Work Special Trade Contractors

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Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

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# SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the installation of siding and roofing (including roof spraying, painting, or coating). This industry also includes contractors engaged in sheet metal work, except that done in connection with plumbing, heating, or air conditioning. For specific examples, refer to the 1972 Standard Industrial Classification (SIC) Manual and its 1977 supplement.<sup>1</sup>

During 1982, there were 21,152 establishments with payroll classified in this industry.<sup>2</sup> All business receipts of these establishments amounted to \$10.0 billion, of which \$9.8 billion were receipts for construction work. Their payments for construction work subcontracted to others amounted to \$521 million, leaving net construction receipts of about \$9.3 billion. Value added for 1982 was \$5.5 billion. (See Introduction and appendixes for explanation of terms.)

The establishments in this industry made payments of \$3.8 billion for materials, components, and supplies purchased for use in construction work for others, purchased and subsequently provided to subcontractors for their use, purchased and then resold to others, and purchased and used in construction work for their own account. However, materials furnished to contractors by owners of projects are, of course, not included. Payments of \$204 million were also made for selected power, fuels, and lubricants purchased during the year from other companies or received from other establishments of the parent company.

<sup>1</sup>Standard Industrial Classification Manual: 1972. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Stock No. 041-001-00066-6. 1977 Supplement. Stock No. 003-005-00176-0.

<sup>2</sup>Limited data for establishments in this industry without payroll (nonemployers) will be included in the U.S. industry summary report to be published after the individual industry reports have been issued.

Establishments with 10 employees or more, while representing only 24 percent of the total number of employer establishments in this industry, accounted for 77 percent of all business receipts.

Total average employment in the industry showed an increase of 11 percent from 1977 to a total of 191 thousand employees. Total payroll for 1982 amounted to \$3.0 billion. Hours worked by construction workers during the first quarter of 1982 were 49.3 million hours, while hours worked during the third quarter were 63.5 million hours.

Payments of \$642 million for employer costs for fringe benefits (not included in payroll) represent expenditures during the year for legally required and voluntary fringe benefit programs for employees—such as employers' Social Security contributions, unemployment compensation, pension plans, and welfare plans.

The 1982 estimates for establishments with payroll in all of the construction industries are based on a probability sample consisting of about 172,000 construction establishments. The estimates for this particular industry are based on a sample of about 8,300 establishments.

The statistics reported by each establishment cover all of its activities, not just construction. Therefore, aggregates of such data for an industry reflect not only the primary construction activities of the establishments in the industry, but also their secondary construction activities and any nonconstruction activities.

All data shown are based on current dollars for the years specified and have not been adjusted for price changes or inflation between 1977 and 1982.



**Table 1. General Statistics for Establishments With Payroll by State: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see Introductory text. For explanation of terms, see appendixes]

Location of establishment	1982							
	Number of establishments	Employees**		Payroll		Construction worker hours (thousands)	Total construction receipts	Net construction receipts†
		All	Construction workers	All employees	Construction workers			
A	B	C	D	E	F	G	H	
United States .....	21 152	191 489	158 901	3 034 812	2 320 658	230 679	9 836 510	9 315 228
Alabama .....	319	3 289	2 659	38 405	28 495	3 994	117 551	112 186
Alaska .....	49	535	436	11 347	9 540	458	40 285	38 424
Arizona .....	268	2 731	2 219	37 515	28 187	3 110	137 335	129 932
Arkansas .....	140	1 273	1 065	16 978	13 880	1 629	61 493	58 759
California .....	2 093	18 481	15 225	300 226	224 763	17 532	1 031 858	992 928
Colorado .....	373	3 508	2 977	52 511	39 734	4 009	180 268	171 285
Connecticut .....	330	2 657	2 206	45 689	34 477	3 013	152 484	142 011
Delaware .....	57	874	754	14 920	11 604	1 214	45 020	43 864
District of Columbia .....	26	389	345	8 550	7 662	568	19 734	19 277
Florida .....	1 535	14 931	12 393	195 298	150 156	19 372	653 002	624 705
Georgia .....	413	4 937	4 280	82 304	48 308	5 964	210 313	200 520
Hawaii .....	114	945	663	18 374	10 919	924	52 644	49 929
Idaho .....	76	501	431	7 125	5 747	526	27 892	26 315
Illinois .....	1 008	10 535	8 526	221 647	170 129	12 470	641 758	595 827
Indiana .....	485	4 404	3 685	80 684	62 537	5 454	227 348	219 239
Iowa .....	298	3 473	2 773	64 257	48 096	4 111	204 048	183 297
Kansas .....	209	1 685	1 348	26 726	18 455	1 941	81 088	77 454
Kentucky .....	267	1 841	1 470	28 555	20 366	2 071	84 111	80 451
Louisiana .....	327	3 420	3 010	49 931	40 220	4 604	148 900	140 371
Maine .....	85	678	579	9 102	6 980	1 000	31 177	30 365
Maryland .....	408	4 615	3 815	67 185	49 808	5 907	205 995	197 070
Massachusetts .....	535	4 484	3 695	66 233	51 431	5 389	226 368	213 121
Michigan .....	692	6 284	5 099	117 078	89 682	7 049	395 702	371 860
Minnesota .....	294	3 114	2 486	66 281	50 725	3 692	197 252	187 252
Mississippi .....	136	1 158	995	11 665	9 159	1 294	39 653	38 564
Missouri .....	445	4 167	3 353	68 166	50 790	4 451	217 519	202 499
Montana .....	61	393	321	7 466	5 593	467	24 877	23 986
Nebraska .....	183	1 524	1 227	28 974	22 384	1 893	105 349	92 287
Nevada .....	92	708	593	13 160	10 115	709	44 706	43 946
New Hampshire .....	77	633	487	8 928	6 304	784	31 547	30 139
New Jersey .....	808	6 301	5 367	99 667	76 048	7 736	316 155	302 533
New Mexico .....	106	1 030	871	12 816	10 300	1 304	44 621	43 203
New York .....	1 441	11 436	9 389	190 237	148 871	13 908	638 621	585 700
North Carolina .....	553	5 197	4 482	56 486	41 679	7 204	197 431	190 613
North Dakota .....	57	482	392	7 260	5 386	629	34 261	32 435
Ohio .....	1 047	8 134	6 672	147 245	115 973	10 099	454 297	422 832
Oklahoma .....	234	2 569	2 235	36 534	29 467	3 158	129 485	125 006
Oregon .....	294	1 637	1 309	24 611	19 257	1 621	81 273	78 223
Pennsylvania .....	1 298	10 496	8 545	180 828	136 030	12 616	553 508	535 065
Rhode Island .....	106	661	566	9 783	7 776	842	31 047	29 651
South Carolina .....	217	2 320	2 001	25 752	19 389	3 272	87 896	84 840
South Dakota .....	42	428	358	6 399	4 382	582	19 587	18 702
Tennessee .....	398	3 693	3 212	50 321	38 185	4 628	159 355	153 790
Texas .....	1 263	14 732	12 684	223 411	173 249	19 894	725 380	677 867
Utah .....	151	1 383	1 190	20 028	16 233	1 667	67 168	64 959
Vermont .....	51	479	397	8 198	6 109	737	22 892	21 830
Virginia .....	493	4 820	3 844	56 351	41 024	6 241	192 016	184 567
Washington .....	509	3 254	2 540	61 782	45 806	3 391	215 688	208 385
West Virginia .....	92	717	619	11 726	8 932	867	35 405	34 650
Wisconsin .....	561	3 482	2 894	58 869	46 041	4 316	178 655	170 744
Wyoming .....	45	295	246	5 258	4 083	345	16 463	13 976

1982—Con.						1977			Relative standard error of estimate (percent) for column—			Location of establishment
Value added††	Payments for materials, components, supplies, and fuels	Payments for construction work sub-contracted to others	Rental payments for machinery, equipment, and structures	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts	Value added††				
I	J	K	L	M	N	O	P	Q	B	H	M	
5 459 875	4 052 376	521 282	109 183	157 529	1 393 096	171 931	6 200 390	3 420 412	(W)	(W)	1	U.S.
63 012	49 559	5 365	878	1 609	16 868	2 895	80 643	43 505	7	5	21	Ala.
22 510	18 722	1 860	238	704	5 879	242	17 870	9 827	9	8	8	Alaska
70 879	81 357	7 403	1 890	3 865	20 110	1 877	87 427	34 544	7	5	12	Ariz.
33 805	26 106	2 734	484	773	10 002	1 354	37 509	21 517	11	11	9	Ark.
580 943	441 795	38 928	14 329	13 559	141 585	15 794	824 634	421 756	2	1	3	Calif.
95 353	82 501	9 003	2 338	3 358	21 438	2 465	90 452	45 835	6	5	8	Colo.
83 832	60 087	10 472	1 646	2 591	19 333	2 920	94 649	51 809	5	4	11	Conn.
26 385	17 556	1 158	345	1 249	8 487	787	25 478	15 787	8	6	13	Del.
14 200	5 091	457	381	22	2 733	154	4 103	3 088	12	7	(W)	D.C.
348 239	288 764	28 297	8 803	10 798	96 391	9 018	273 759	146 795	2	2	4	Fla.
105 089	97 247	9 793	2 214	3 949	28 854	4 028	100 483	57 755	5	4	5	Ga.
29 940	21 069	2 714	1 311	1 036	7 424	869	31 667	16 834	9	7	6	Hawaii
15 825	11 595	1 577	557	317	4 461	574	19 556	9 634	12	9	6	Idaho
378 480	228 696	46 131	6 846	9 384	83 345	10 318	437 721	242 416	2	2	4	Ill.
137 855	88 890	8 108	1 781	2 979	32 385	4 533	158 669	89 913	4	3	6	Ind.
113 778	73 662	20 751	3 029	2 179	27 854	2 657	90 717	53 304	5	4	10	Iowa
45 911	34 553	3 833	1 339	1 633	14 138	1 967	87 206	36 146	8	7	3	Kans.
50 420	31 691	3 660	1 031	1 853	18 839	1 904	54 605	31 332	7	6	7	Ky.
91 464	(D)	8 529	1 462	2 387	22 835	2 634	71 529	44 656	5	3	8	La.
17 079	14 521	812	213	611	5 796	822	28 563	14 382	11	11	15	Maine
118 021	84 473	8 925	2 610	3 840	31 173	4 022	122 468	66 110	5	3	8	Md.
125 919	92 001	13 247	2 830	3 867	26 798	3 356	111 759	66 332	5	5	8	Mass.
238 464	147 126	23 842	3 589	6 234	58 177	7 087	300 655	164 638	3	2	6	Mich.
114 847	74 110	10 000	1 908	2 668	33 212	2 835	125 029	88 573	3	2	4	Minn.
21 150	17 993	1 088	128	389	5 201	1 144	34 422	19 248	12	11	19	Miss.
118 722	88 001	15 020	2 316	3 716	36 182	4 218	160 470	85 149	5	4	6	Mo.
13 868	10 231	891	306	390	3 935	319	13 415	7 378	12	14	15	Mont.
52 511	41 591	13 062	1 100	1 339	11 310	1 290	42 952	24 548	7	5	4	Nebr.
24 830	19 275	759	847	765	8 186	751	34 748	15 801	8	5	23	Nev.
15 548	14 968	1 408	594	318	4 556	601	18 520	9 551	12	11	11	N.H.
183 417	128 241	13 622	2 817	3 870	37 128	5 319	209 687	114 632	3	3	5	N.J.
24 406	20 563	1 418	732	871	7 391	1 156	32 736	17 220	9	7	17	N. Mex.
348 784	248 150	52 920	6 820	9 913	73 798	9 728	330 488	192 429	2	2	5	N.Y.
98 394	94 432	6 817	2 073	2 938	32 332	4 429	122 778	65 873	4	4	5	N.C.
16 156	18 705	1 826	258	559	5 589	488	22 070	13 160	14	10	5	N. Dak.
248 238	182 725	31 465	5 192	8 284	63 971	8 596	333 355	190 980	3	2	5	Ohio
69 604	58 129	4 479	1 335	2 029	18 040	1 646	60 357	33 520	6	6	10	Okla.
44 659	34 238	3 049	1 118	1 701	13 929	2 218	83 288	48 977	9	8	16	Oreg.
303 551	239 083	18 443	5 613	7 599	83 205	11 566	393 513	235 057	2	2	3	Pa.
18 869	12 859	1 396	156	159	3 715	746	22 614	13 531	11	10	22	R.I.
45 600	42 429	3 055	562	1 401	12 537	1 708	49 261	24 142	6	5	7	S.C.
11 466	9 084	885	135	106	2 931	405	13 479	7 290	18	14	10	S. Dak.
88 356	70 991	5 565	1 581	3 223	24 601	3 493	99 773	52 821	5	4	12	Tenn.
383 724	300 558	47 512	7 147	13 549	106 763	11 555	352 281	197 905	2	2	3	Tex.
34 127	33 712	2 229	973	918	8 826	1 655	58 254	31 878	8	8	13	Utah
12 274	(D)	1 062	180	716	4 246	384	11 275	8 794	12	11	7	Vt.
100 632	88 071	7 448	2 276	4 151	30 614	4 134	116 401	64 272	5	4	8	Va.
135 648	75 941	9 302	2 725	3 907	30 487	3 355	138 445	74 518	5	3	5	Wash.
22 318	12 867	755	173	230	4 754	1 084	31 192	18 533	9	6	9	W. Va.
104 082	73 114	7 911	1 933	2 921	27 203	4 451	166 516	91 058	4	4	7	Wis.
7 266	6 939	2 487	263	109	2 151	381	14 966	7 674	9	10	7	Wyo.



**Table 2. Detailed Statistics for Establishments With Payroll: 1982 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1982	1977	1972	1967	Relative standard error of estimate (percent)			
					1982	1977	1972	1967
Number of establishments in business during year .....	21 152	20 577	18 535	15 755	1	2	2	2
Number of establishments in business at end of year .....	20 567	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Proprietors and working partners .....	7 791	12 273	11 973	12 148	2	3	3	3
All employees** .....	191 489	171 931	158 051	133 147	1	1	1	1
Construction workers:								
March .....	139 078	125 835	117 207	102 328	1	1	1	1
May .....	156 478	148 478	130 050	111 581	1	1	1	1
August .....	168 728	157 631	143 943	123 949	1	1	2	1
November .....	162 767	152 661	137 610	118 484	1	1	2	1
Average .....	158 901	146 307	134 189	115 083	1	1	1	1
Other employees:								
March .....	32 404	24 637	24 477	17 806	1	1	3	2
Construction worker hours (thousands):								
January to March .....	49 341	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
April to June .....	57 739	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
July to September .....	63 483	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
October to December .....	60 115	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Total hours worked .....	230 679	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Payroll, all employees .....	3 034 812	1 967 824	1 405 756	838 860	(W)	1	1	1
Payroll, construction workers .....	2 320 658	1 555 286	1 137 273	684 980	1	1	1	1
Payroll, other employees .....	714 154	412 538	268 463	153 988	1	1	1	1
First quarter payroll, all employees .....	835 491	395 479	(NA)	(NA)	1	(W)	(NA)	(NA)
Employer costs for fringe benefits .....	642 394	407 503	(NA)	(NA)	1	(W)	(NA)	(NA)
Legally required expenditures .....	436 104	240 107	(NA)	(NA)	1	1	(NA)	(NA)
Voluntary expenditures .....	206 290	187 396	(NA)	(NA)	1	(W)	(NA)	(NA)
All business receipts .....	10 033 533	6 320 693	3 999 967	2 420 555	1	1	1	1
Total construction receipts .....	9 836 510	6 200 390	3 940 243	2 384 266	1	1	1	1
Receipts for work subcontracted in from others .....	4 045 325	2 998 790	1 732 057	1 030 621	1	1	1	1
Land receipts <sup>1</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts .....	197 023	120 304	59 724	36 356	2	2	5	2
Net construction receipts† .....	9 315 228	5 938 778	3 752 108	2 288 289	1	1	1	1
Value added†† .....	5 459 875	3 420 412	2 347 983	1 414 565	1	1	2	1
Selected payments .....	4 573 658	2 900 282	1 651 984	1 005 917	1	1	2	1
Materials, components, and supplies <sup>2</sup> .....	3 848 560	2 535 596	1 463 849	909 615	1	1	2	1
Construction work subcontracted to others .....	521 282	261 612	188 135	96 079	1	2	4	2
Selected power, fuels, and lubricants .....	203 818	103 075	(NA)	(NA)	1	1	(NA)	(NA)
Electricity .....	27 879	12 350	(NA)	(NA)	2	1	(NA)	(NA)
Natural gas .....	11 310	5 667	(NA)	(NA)	2	3	(NA)	(NA)
Gasoline and diesel fuel (including gasohol) .....	151 864	75 166	(NA)	(NA)	1	1	(NA)	(NA)
Other, including lubricating oils and greases .....	12 762	9 893	(NA)	(NA)	2	3	(NA)	(NA)
Storage capacity for fuels <sup>3</sup> (thousand gallons) .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Rental payments for machinery, equipment, and structures .....	109 183	49 191	(NA)	(NA)	1	1	(NA)	(NA)
For machinery and equipment .....	51 791	23 525	14 164	7 557	2	1	3	3
For structures .....	57 392	25 666	(NA)	(NA)	2	1	(NA)	(NA)
Selected purchased services .....	148 914	68 306	(NA)	(NA)	1	1	(NA)	(NA)
Communication services .....	59 982	35 249	(NA)	(NA)	2	1	(NA)	(NA)
Repairs to structures and related facilities .....	12 388	6 334	(NA)	(NA)	4	4	(NA)	(NA)
Repairs to machinery and equipment .....	76 546	46 723	(NA)	(NA)	1	1	(NA)	(NA)
Ownership of construction projects:								
Total construction receipts .....	9 836 510	6 200 390	3 940 243	2 384 266	1	1	1	1
Government owned .....	1 552 323	803 964	828 641	504 913	3	1	2	2
Privately owned .....	8 284 187	5 396 426	3 111 602	1 879 353	1	1	1	1

<sup>1</sup>Data were collected separately for establishments classified in SIC 1531, Operative Builders and SIC 8552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

<sup>2</sup>For 1967 and 1972, Includes data for power, fuels, and lubricants.

<sup>3</sup>Data were collected only for establishments classified as heavy construction contractors.

**Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1982 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1982	1977	1972	1967	Relative standard error of estimate (percent)			
					1982	1977	1972	1967
<b>STRUCTURES, MACHINERY, AND EQUIPMENT</b>								
Beginning-of-year gross book value of depreciable assets .....	1 279 401	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Capital expenditures, other than land .....	157 529	132 584	68 317	37 686	2	2	3	2
New .....	115 623	106 245	57 388	31 217	2	2	3	2
Used .....	41 906	26 339	10 929	6 469	3	3	6	5
Retirements and disposition of depreciable assets .....	43 834	(NA)	(NA)	(NA)	4	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets .....	1 393 096	814 941	488 912	(NA)	1	1	5	(NA)
Depreciation charges during year .....	181 981	83 633	52 209	(NA)	1	1	4	(NA)
<b>Structures, Additions, and Related Facilities</b>								
Beginning-of-year gross book value of depreciable assets .....	328 593	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
Capital expenditures, other than land .....	25 027	17 336	12 771	8 046	4	5	8	6
New structures and related facilities .....	18 459	12 998	8 508	5 558	4	3	6	5
Used structures and related facilities .....	6 567	4 338	4 263	2 488	8	7	10	8
Retirements and disposition of depreciable assets .....	6 582	(NA)	(NA)	(NA)	11	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets .....	347 038	187 065	117 131	(NA)	2	2	6	(NA)
Depreciation charges during year .....	26 410	9 363	7 889	(NA)	4	2	8	(NA)
<b>Machinery and Equipment</b>								
Beginning-of-year gross book value of depreciable assets .....	950 807	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Capital expenditures, other than land .....	132 502	115 249	55 546	29 640	2	2	4	3
New machinery and equipment, including automobiles and trucks .....	97 164	93 247	48 880	25 659	2	2	3	1
New automobiles and trucks, intended primarily for highway use .....	51 857	58 579	(NA)	(NA)	3	3	(NA)	(NA)
Used machinery and equipment, including automobiles and trucks .....	35 338	22 002	6 666	3 981	3	3	6	5
Retirements and disposition of depreciable assets .....	37 252	(NA)	(NA)	(NA)	4	(NA)	(NA)	(NA)
End-of-year gross book value of depreciable assets .....	1 046 058	627 876	371 781	(NA)	1	1	5	(NA)
Depreciation charges during year .....	155 571	74 270	44 320	(NA)	1	1	4	(NA)

**Table 4. Value of Inventories for Establishments With Payroll: 1982 and 1981**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
<b>All establishments:</b>		
Number .....	21 152	1
Total construction receipts .....	9 836 510	1
<b>Establishments with inventories:</b>		
Number .....	7 846	3
Total construction receipts .....	6 841 792	1
<b>Inventories<sup>1</sup>:</b>		
End of 1982, total .....	321 174	1
Value for establishments with LIFO reserve .....	37 895	1
Amount of LIFO reserve .....	12 110	3
Value for establishments with no LIFO reserve .....	283 279	1
End of 1981, total .....	305 990	1
Value for establishments with LIFO reserve .....	37 017	1
Amount of LIFO reserve .....	11 187	3
Value for establishments with no LIFO reserve .....	268 973	1
<b>Establishments with no inventories:</b>		
Number .....	13 306	1
Total construction receipts .....	2 994 718	1

<sup>1</sup>Inventories at cost or market prior to any adjustment to correct to LIFO values.



**Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1982 and 1977**

(Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes)

Selected statistics	Total	Establishments with an average of—									1,000 employees or more
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees		
<b>1982</b>											
Number of establishments -----	21 152	11 560	4 518	2 801	1 775	369	115	10	3	-	
All employees** -----	191 489	23 568	29 970	37 877	53 042	25 114	16 269	3 240	2 408	-	
Payroll, all employees -----	3 034 812	214 453	360 413	562 587	944 806	515 720	311 375	56 770	68 687	-	
Construction worker hours (thousands) -----	230 679	26 611	32 778	42 594	65 779	33 723	21 553	4 252	3 388	-	
All business receipts -----	10 033 533	971 376	1 288 324	1 852 950	3 059 469	1 618 603	926 818	315 992	(D)	-	
Total construction receipts -----	9 836 510	966 393	1 266 182	1 821 395	2 987 817	1 565 934	913 898	142 737	172 353	-	
Net construction receipts† -----	9 315 228	902 414	1 203 471	1 732 741	2 821 971	1 498 364	868 311	287 954	(D)	-	
Value added†† -----	5 459 875	475 541	682 893	1 019 851	1 650 100	913 327	532 234	185 927	(D)	-	
Payments for materials, components, supplies, and fuels -----	4 052 376	431 856	542 720	744 445	1 243 523	637 705	349 198	102 929	(D)	-	
Payments for construction work subcontracted to others -----	521 282	63 979	62 711	68 653	185 845	67 569	45 387	27 136	(D)	-	
Rental payments for machinery, equipment, and structures -----	109 183	8 849	15 556	21 758	32 996	17 538	9 608	2 878	(D)	-	
Capital expenditures, other than land -----	157 529	17 646	24 406	32 657	48 260	21 093	9 981	1 706	1 777	-	
End-of-year gross book value of depreciable assets -----	1 393 096	175 436	216 476	287 991	394 710	180 334	94 094	19 491	24 562	-	
<b>1977</b>											
All employees** -----	171 931	23 908	26 745	37 808	46 478	23 602	9 616	3 774	(D)	-	
Total construction receipts -----	6 200 390	790 592	812 234	1 285 830	1 756 795	993 145	561 794	(D)	(D)	-	
Value added†† -----	3 420 412	405 410	439 638	718 723	976 009	554 563	328 070	(D)	(D)	-	
<b>1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** -----	1	2	3	2	1	(W)	(W)	(W)	(W)	-	
Net construction receipts† -----	1	2	3	2	1	(W)	(W)	(W)	(W)	-	
Capital expenditures, other than land -----	2	6	7	5	2	(W)	(W)	(W)	(W)	-	

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

**Table 6. Selected Statistics for Establishments With Payroll by Receipts Size Class: 1982 and 1977**

(Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes)

Selected statistics	Total	Establishments with all business receipts of—									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
<b>1982</b>											
Number of establishments -----	21 152	2 737	2 257	3 493	5 241	3 018	2 124	1 518	522	192	48
All employees** -----	191 489	3 140	4 070	8 652	24 265	25 847	31 069	40 590	26 207	17 398	10 248
Payroll, all employees -----	3 034 812	9 621	23 132	66 800	235 577	312 227	457 405	735 183	540 241	391 137	263 487
Construction worker hours (thousands) -----	230 679	2 930	3 966	9 027	26 237	28 624	35 153	49 849	35 370	24 152	15 366
All business receipts -----	10 033 533	30 518	82 285	252 240	859 025	1 064 993	1 491 775	2 328 575	1 790 493	1 265 673	867 955
Total construction receipts -----	9 836 510	30 483	81 770	250 155	854 466	1 050 409	1 469 350	2 291 591	1 735 813	1 220 742	851 730
Net construction receipts† -----	9 315 228	28 928	72 537	240 796	819 281	995 973	1 400 555	2 173 257	1 650 628	1 155 703	777 568
Value added†† -----	5 459 875	16 475	37 173	133 141	447 042	572 346	803 950	1 253 435	986 548	698 904	510 857
Payments for materials, components, supplies, and fuels -----	4 052 376	12 487	35 878	109 740	376 797	438 210	619 030	956 806	718 760	501 729	282 936
Payments for construction work subcontracted to others -----	521 282	1 555	9 232	9 358	35 185	54 436	68 794	118 333	85 185	65 039	74 162
Rental payments for machinery, equipment, and structures -----	109 183	360	782	2 292	8 514	11 147	19 983	26 378	17 673	14 722	7 329
Capital expenditures, other than land -----	157 529	339	1 499	5 188	15 435	20 547	27 213	41 106	22 604	14 857	8 739
End-of-year gross book value of depreciable assets -----	1 393 096	9 041	17 247	51 621	156 431	170 830	235 662	328 079	194 770	148 439	82 974
<b>1977</b>											
All employees** -----	171 931	4 462	6 514	13 198	26 246	27 208	28 740	36 530	18 938	110 097	(NA)
Total construction receipts -----	6 200 390	36 662	110 882	312 805	744 916	882 302	1 065 337	1 563 152	895 960	1588 375	(NA)
Value added†† -----	3 420 412	21 626	63 033	171 707	408 985	482 941	585 469	865 891	498 532	1322 230	(NA)
<b>1982 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** -----	1	3	4	4	3	3	2	1	(W)	(W)	(W)
Net construction receipts† -----	1	3	6	3	3	3	2	1	(W)	(W)	(W)
Capital expenditures, other than land -----	2	25	16	11	6	7	6	2	(W)	(W)	(W)

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

†Data for this size class include establishments with receipts of \$10,000,000 or more, which were not tabulated separately in 1977.

**Table 7. Construction Receipts for Establishments With Payroll by Type of Construction: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Type of construction	Construction receipts			Relative standard error of estimate (percent) for column—		
	Total	New construction <sup>1</sup>	Maintenance and repair			
	A	B	C	A	B	C
<b>1982</b>						
<b>Total construction receipts</b> .....	<b>9 836 510</b>	<b>4 917 853</b>	<b>4 918 856</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Building construction</b> .....	<b>8 801 103</b>	<b>4 268 941</b>	<b>4 532 182</b>	<b>1</b>	<b>1</b>	<b>1</b>
Single-family houses .....	1 961 503	759 985	1 201 517	1	2	2
Single-family houses, detached .....	1 688 604	626 315	1 062 288	2	2	2
Single-family houses, attached .....	272 898	133 670	139 228	3	3	5
Apartment buildings with two or more apartments .....	419 517	171 539	247 978	2	3	3
Other residential buildings .....	202 069	111 525	90 544	2	4	3
Office and bank buildings .....	1 297 641	805 155	492 486	1	1	1
Office buildings .....	1 053 447	874 943	378 504	1	1	1
Bank buildings and other financial institutions .....	244 194	130 211	113 982	1	1	1
Industrial buildings and warehouses .....	2 534 002	1 276 466	1 257 536	1	1	1
Industrial buildings .....	2 023 631	1 006 399	1 017 232	1	1	1
Warehouses .....	510 371	270 067	240 304	1	2	1
Stores, restaurants, public garages, and automobile service stations .....	830 051	401 946	428 104	2	2	2
Religious buildings .....	197 461	80 505	116 956	2	3	2
Educational buildings .....	742 974	305 923	437 051	1	1	2
Hospitals and institutional buildings .....	458 917	279 883	179 034	1	1	1
Amusement, social, and recreational buildings .....	65 796	41 039	24 756	4	5	4
Other nonresidential buildings .....	91 166	34 971	56 194	5	6	6
<b>Nonbuilding construction</b> .....	<b>177 510</b>	<b>151 104</b>	<b>26 405</b>	<b>2</b>	<b>2</b>	<b>5</b>
<b>Construction work, n.s.k.</b> .....	<b>857 896</b>	<b>497 807</b>	<b>360 088</b>	<b>3</b>	<b>3</b>	<b>3</b>
<b>1977</b>						
<b>Total construction receipts</b> .....	<b>8 200 390</b>	<b>3 685 895</b>	<b>2 514 495</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>Building construction</b> .....	<b>5 568 113</b>	<b>3 239 899</b>	<b>2 328 414</b>	<b>1</b>	<b>(W)</b>	<b>1</b>
Single-family houses .....	1 773 735	859 214	914 521	1	1	2
Apartment buildings with two or more apartments .....	328 853	182 657	146 196	2	3	2
Other residential buildings .....	128 598	72 566	56 032	2	1	3
Office and bank buildings .....	398 738	277 135	121 603	1	1	1
Industrial buildings and warehouses .....	1 536 813	937 139	599 674	1	1	1
Stores, restaurants, public garages, and automobile service stations .....	356 136	228 379	127 757	1	1	2
Religious buildings .....	133 057	71 679	61 378	2	2	4
Educational buildings .....	457 746	300 415	157 331	1	1	2
Hospitals and institutional buildings .....	312 024	226 334	85 690	2	1	7
Other nonresidential buildings .....	142 413	64 181	58 232	3	3	3
<b>Nonbuilding construction</b> .....	<b>122 834</b>	<b>81 233</b>	<b>41 601</b>	<b>4</b>	<b>4</b>	<b>5</b>
<b>Construction work, n.s.k.</b> .....	<b>509 607</b>	<b>364 509</b>	<b>145 098</b>	<b>3</b>	<b>3</b>	<b>3</b>

<sup>1</sup>For this industry, data for additions and alterations were not collected separately. These data are included with "New Construction."



**Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1982**

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establishments	All employees**	Payroll, all employees	Total construction receipts		Net construction receipts†	Value added††	Payments for construction work sub-contracted to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H			
<b>All establishments</b> .....	21 152	191 489	3 034 812	9 836 510	4 220 989	9 315 228	5 459 875	521 282	1	1	1
Establishments not specializing by type .....	6 008	86 935	1 504 187	4 778 370	(NA)	4 520 042	2 820 195	258 327	1	1	1
Establishments specializing 51 percent or more .....	15 143	104 553	1 530 625	5 058 140	4 220 989	4 795 185	2 839 679	262 954	1	1	3
<b>SINGLE-FAMILY HOUSES, DETACHED</b>											
<b>All establishments specializing in type</b> .....	7 458	34 895	385 032	1 417 104	1 210 925	1 325 153	720 723	91 951	2	2	6
Establishments with—											
100 percent specialization .....	3 408	12 448	134 230	516 592	516 592	476 721	254 204	39 870	4	3	8
90 to 99 percent specialization .....	1 165	5 639	67 733	246 755	229 342	229 243	125 224	17 511	5	6	13
80 to 89 percent specialization .....	964	4 726	52 327	188 464	154 616	174 325	90 132	14 139	6	5	22
70 to 79 percent specialization .....	1 149	6 019	60 215	228 410	168 092	218 462	119 048	9 948	5	4	10
60 to 69 percent specialization .....	552	3 964	49 395	164 943	102 685	156 812	87 296	8 130	6	5	12
51 to 59 percent specialization .....	219	1 896	21 130	71 939	39 596	69 588	44 817	2 351	11	10	36
<b>SINGLE-FAMILY HOUSES, ATTACHED</b>											
<b>All establishments specializing in type</b> .....	531	2 118	24 092	101 415	81 639	93 896	51 757	7 519	8	8	19
Establishments with—											
100 percent specialization .....	165	603	6 150	29 590	29 590	26 079	13 792	3 511	17	19	40
90 to 99 percent specialization .....	144	331	3 456	14 470	13 428	13 652	7 819	817	17	18	12
80 to 89 percent specialization .....	59	329	3 727	13 013	10 634	12 940	8 260	*73	14	15	43
70 to 79 percent specialization .....	56	239	2 904	12 311	8 928	11 687	5 489	624	23	20	36
60 to 69 percent specialization .....	94	476	6 145	25 260	15 501	23 219	11 818	2 041	16	18	31
51 to 59 percent specialization .....	12	137	1 709	6 770	3 557	6 318	4 577	*452	33	36	49
<b>APARTMENT BUILDINGS WITH TWO OR MORE APARTMENTS</b>											
<b>All establishments specializing in type</b> .....	307	2 407	33 170	103 533	77 641	93 600	55 480	9 932	8	8	10
Establishments with—											
100 percent specialization .....	62	491	6 187	17 639	17 639	14 392	8 486	3 247	19	15	10
90 to 99 percent specialization .....	59	311	2 824	9 611	8 904	9 269	4 836	342	25	25	29
80 to 89 percent specialization .....	30	224	4 121	13 035	10 467	11 061	6 036	1 974	20	17	1
70 to 79 percent specialization .....	50	463	6 687	22 236	16 581	20 949	14 097	1 287	22	25	35
60 to 69 percent specialization .....	83	583	8 484	24 678	15 128	23 049	14 756	*1 629	15	13	43
51 to 59 percent specialization .....	21	335	4 866	16 333	8 920	14 880	7 268	*1 453	13	17	44
<b>WAREHOUSES</b>											
<b>All establishments specializing in type</b> .....	178	2 246	30 251	100 093	73 819	97 375	51 938	2 718	6	5	8
Establishments with—											
100 percent specialization .....	25	202	2 246	7 606	7 606	7 505	3 987	*101	15	26	44
90 to 99 percent specialization .....	13	214	3 979	12 460	11 989	12 087	7 791	373	21	18	8
80 to 89 percent specialization .....	*9	*193	1 375	5 889	4 711	5 796	3 291	*93	46	24	48
70 to 79 percent specialization .....	75	651	8 690	28 910	21 417	27 895	14 526	1 014	15	11	14
60 to 69 percent specialization .....	54	986	13 961	45 228	27 895	44 092	22 340	1 136	7	6	6
51 to 59 percent specialization .....	-	-	-	-	-	-	-	-	-	-	-
<b>INDUSTRIAL BUILDINGS</b>											
<b>All establishments specializing in type</b> .....	1 540	24 267	468 759	1 412 646	1 101 703	1 352 571	853 232	60 075	2	1	5
Establishments with—											
100 percent specialization .....	518	5 864	104 980	331 731	331 731	316 978	197 663	14 753	4	4	19
90 to 99 percent specialization .....	157	3 059	66 681	173 427	160 970	165 140	119 495	8 287	5	3	3
80 to 89 percent specialization .....	198	2 655	50 902	163 564	133 326	158 869	97 660	4 695	7	6	5
70 to 79 percent specialization .....	260	4 493	81 375	254 456	182 696	244 983	149 571	9 473	4	3	5
60 to 69 percent specialization .....	292	5 343	103 642	317 751	199 279	305 965	186 624	11 785	3	2	3
51 to 59 percent specialization .....	114	2 852	61 177	171 716	93 698	160 635	102 217	11 081	4	4	9
<b>OFFICE BUILDINGS</b>											
<b>All establishments specializing in type</b> .....	259	8 362	148 913	361 791	309 189	364 900	245 393	18 891	2	1	4
Establishments with—											
100 percent specialization .....	76	1 354	31 525	98 469	98 469	93 091	63 629	5 378	4	3	5
90 to 99 percent specialization .....	25	744	19 263	39 279	36 497	37 192	24 102	2 087	4	4	5
80 to 89 percent specialization .....	55	1 677	40 711	103 563	84 134	99 521	71 286	4 042	4	3	11
70 to 79 percent specialization .....	31	1 096	23 933	55 715	40 166	53 715	31 291	2 000	3	4	16
60 to 69 percent specialization .....	32	732	17 180	47 521	29 532	45 363	31 094	2 158	4	4	12
51 to 59 percent specialization .....	40	759	16 300	37 244	20 390	36 018	23 990	1 226	9	4	16
<b>STORES, RESTAURANTS, PUBLIC GARAGES, AND AUTOMOBILE SERVICE STATIONS</b>											
<b>All establishments specializing in type</b> .....	645	5 846	85 960	294 801	235 463	278 236	157 322	16 565	5	5	10
Establishments with—											
100 percent specialization .....	246	1 787	27 877	89 577	89 577	84 472	53 702	5 104	8	7	18
90 to 99 percent specialization .....	38	289	4 902	15 837	14 616	14 410	7 968	1 427	15	14	31
80 to 89 percent specialization .....	95	780	8 753	34 771	28 666	33 682	18 867	1 088	18	20	29
70 to 79 percent specialization .....	123	1 339	18 435	72 024	52 989	66 631	33 049	5 393	11	9	19
60 to 69 percent specialization .....	120	1 385	21 844	68 489	41 855	65 351	36 191	3 137	7	7	17
51 to 59 percent specialization .....	22	285	4 148	14 102	7 757	13 688	7 543	414	16	19	11
<b>EDUCATIONAL BUILDINGS</b>											
<b>All establishments specializing in type</b> .....	213	2 881	49 409	174 787	119 296	167 476	93 027	7 311	5	5	11
Establishments with—											
100 percent specialization .....	*9	*30	*282	*578	*578	*578	*301	-	58	55	-
90 to 99 percent specialization .....	30	365	5 827	20 813	19 209	20 288	10 505	525	15	21	38
80 to 89 percent specialization .....	26	338	5 914	20 300	16 325	19 299	13 138	1 001	19	14	3
70 to 79 percent specialization .....	46	595	9 467	34 243	24 827	32 254	16 476	1 988	11	16	32
60 to 69 percent specialization .....	51	816	15 998	56 067	35 133	53 372	28 346	2 694	8	6	5
51 to 59 percent specialization .....	50	737	11 920	42 786	23 221	41 684	24 258	1 102	10	10	26



**Table 8. Selected Statistics for Establishments With Payroll by Specialization In Types of Construction: 1982—Con.**

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or total receipts for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of construction receipts by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establish- ments	All employees**	Payroll, all employees	Total construction receipts		Net construction receipts†	Value added††	Payments for construction work sub- contracted to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H			
HOSPITALS AND INSTITUTIONAL BUILDINGS											
All establishments specializing in type .....	112	1 327	26 060	75 317	50 948	71 003	45 686	4 314	6	4	2
Establishments with—											
100 percent specialization .....	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—
90 to 99 percent specialization .....	*12	113	2 026	7 551	6 795	(D)	4 139	(D)	28	23	—
80 to 89 percent specialization .....	12	116	3 308	7 006	5 715	(D)	4 915	(D)	15	12	—
70 to 79 percent specialization .....	9	194	5 514	12 375	8 876	11 929	8 515	448	12	7	7
60 to 69 percent specialization .....	74	750	11 945	39 372	24 576	36 177	22 564	3 195	9	7	3
51 to 59 percent specialization .....	3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	—	—	—

**Table 9. Quarterly Construction Worker Hours and Employment for Establishments With**

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers <sup>1</sup>	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)
	A	B	C	D	E	F	G
<b>United States .....</b>	<b>21 152</b>	<b>158 901</b>	<b>230 879</b>	<b>139 078</b>	<b>49 341</b>	<b>156 478</b>	<b>57 739</b>
Alabama .....	319	2 659	3 994	2 521	906	2 679	1 022
Alaska .....	49	436	456	303	77	418	110
Arizona .....	268	2 219	3 110	1 884	646	2 040	758
Arkansas .....	140	1 065	1 629	1 127	368	1 081	447
California .....	2 093	15 225	17 532	13 514	3 815	14 158	4 178
Colorado .....	373	2 977	4 009	2 816	880	2 563	895
Connecticut .....	330	2 206	3 013	1 842	816	2 186	789
Delaware .....	57	754	1 214	702	264	748	314
District of Columbia .....	26	345	568	358	152	341	150
Florida .....	1 535	12 393	19 372	11 579	4 517	12 653	4 962
Georgia .....	413	4 280	5 964	4 339	1 500	4 298	1 465
Hawaii .....	114	663	924	625	220	646	219
Idaho .....	76	431	528	320	114	369	115
Illinois .....	1 008	8 526	12 470	6 637	2 422	8 748	3 223
Indiana .....	485	3 665	5 454	3 099	1 108	3 592	1 355
Iowa .....	296	2 773	4 111	2 351	868	2 807	1 041
Kansas .....	209	1 348	1 941	1 182	394	1 297	493
Kentucky .....	267	1 470	2 071	1 235	437	1 519	544
Louisiana .....	327	3 010	4 604	2 912	1 113	3 013	1 195
Maine .....	65	579	1 000	499	211	542	238
Maryland .....	408	3 815	5 907	3 550	1 301	3 839	1 530
Massachusetts .....	535	3 895	5 389	2 906	1 091	3 732	1 359
Michigan .....	692	5 099	7 049	3 940	1 365	4 855	1 660
Minnesota .....	294	2 486	3 892	2 187	773	2 430	907
Mississippi .....	136	995	1 294	970	289	988	329
Missouri .....	445	3 353	4 451	3 005	946	3 307	1 100
Montana .....	81	321	467	209	83	309	104
Nebraska .....	163	1 227	1 893	1 052	395	1 249	493
Nevada .....	92	593	709	519	151	587	169
New Hampshire .....	77	487	784	343	155	489	189
New Jersey .....	808	5 387	7 736	4 493	1 604	5 449	1 944
New Mexico .....	106	871	1 304	745	274	776	290
New York .....	1 441	9 389	13 908	7 438	2 728	9 205	3 473
North Carolina .....	553	4 462	7 204	4 324	1 813	4 370	1 826
North Dakota .....	57	392	629	277	105	370	155
Ohio .....	1 047	6 672	10 099	5 126	1 943	8 619	2 508
Oklahoma .....	234	2 235	3 158	2 182	709	2 260	785
Oregon .....	294	1 309	1 621	1 235	383	1 211	394
Pennsylvania .....	1 298	8 545	12 616	6 914	2 473	8 420	3 192
Rhode Island .....	106	566	842	500	182	589	226
South Carolina .....	217	2 001	3 272	1 965	783	2 013	830
South Dakota .....	42	358	582	304	111	320	129
Tennessee .....	398	3 212	4 628	2 960	1 049	3 202	1 152
Texas .....	1 263	12 684	19 894	12 357	4 718	12 557	5 048
Utah .....	151	1 190	1 667	988	325	1 123	400
Vermont .....	51	397	737	325	142	378	180
Virginia .....	493	3 844	6 241	3 468	1 277	3 932	1 622
Washington .....	509	2 540	3 391	2 235	741	2 418	838
West Virginia .....	92	619	867	548	164	818	220
Wisconsin .....	581	2 894	4 316	1 873	749	2 976	1 085
Wyoming .....	45	246	345	207	70	217	77

<sup>1</sup>Sum of construction workers during pay periods including 12th of March, May, August, and November.



Payroll by State: 1982

July to September		October to December		Relative standard error of estimate (percent) for column—										Location of establishment
Construction workers¹	Hours worked (thousands)	Construction workers¹	Hours worked (thousands)											
H	I	J	K	B	C	D	E	F	G	H	I	J	K	
168 728	63 483	182 787	60 115	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	(W)	U.S.
2 772	1 085	2 562	980	8	8	7	7	6	7	8	7	8	7	Ala.
506	141	493	127	10	9	7	14	10	13	13	17	13	10	Alaska
2 352	826	2 463	880	7	7	8	8	8	9	8	8	7	8	Ariz.
966	411	1 019	401	10	10	13	12	12	14	9	11	12	13	Ark.
15 464	4 666	18 884	4 874	2	2	2	3	2	3	2	2	2	3	Calif.
3 207	1 124	3 141	1 108	8	8	8	8	8	7	7	7	6	7	Colo.
2 337	810	2 296	818	5	8	8	8	6	7	8	7	5	7	Conn.
810	331	736	304	8	8	8	10	8	9	9	10	8	10	Del.
331	131	332	133	10	7	8	8	12	9	12	10	9	8	D.C.
13 036	5 222	11 760	4 870	2	2	2	3	3	3	3	3	2	3	Fla.
4 308	1 528	4 074	1 469	5	5	7	8	5	5	5	6	5	6	Ga.
879	238	660	245	8	8	7	9	7	10	8	10	10	12	Hawaii
498	153	492	143	13	13	13	18	13	16	13	16	13	17	Idaho
9 374	3 566	9 052	3 257	2	2	2	2	2	2	2	2	2	2	Ill.
3 909	1 540	3 850	1 450	4	4	5	8	4	5	4	5	4	5	Ind.
3 146	1 193	2 669	1 007	6	4	5	6	6	5	6	5	7	5	Iowa
1 587	582	1 204	471	9	8	10	10	9	10	11	11	9	9	Kans.
1 589	572	1 439	518	7	8	8	10	7	9	8	9	7	9	Ky.
3 163	1 214	2 884	1 081	5	5	5	6	5	8	6	6	6	5	La.
819	270	608	280	11	11	11	11	11	12	12	14	10	12	Maine
3 810	1 514	3 816	1 559	5	4	5	5	8	4	5	4	5	6	Md.
3 878	1 493	3 994	1 445	5	5	5	8	5	5	5	6	6	6	Mass.
5 583	1 971	5 767	2 051	3	3	2	3	3	4	3	4	3	4	Mich.
2 597	1 002	2 814	1 008	3	3	3	4	3	4	3	4	3	4	Minn.
1 065	364	936	311	13	11	12	13	13	12	14	12	15	13	Miss.
3 661	1 274	3 227	1 129	5	5	5	6	5	5	5	6	5	6	Mo.
421	149	317	130	11	10	11	17	10	15	12	15	14	13	Mont.
1 399	552	1 142	452	8	8	8	7	6	7	7	7	7	7	Nebr.
650	195	598	193	8	8	11	13	10	11	7	9	7	11	Nev.
555	224	510	205	11	13	11	16	11	15	11	14	11	15	N.H.
5 701	2 122	5 606	2 065	3	4	4	5	3	4	3	4	5	6	N.J.
919	346	1 003	393	9	9	9	11	10	11	10	11	9	10	N. Mex.
10 265	3 937	10 086	3 771	2	3	2	3	3	3	3	3	3	3	N.Y.
4 845	2 003	4 326	1 760	4	4	4	5	4	5	4	5	4	5	N.C.
447	194	437	173	14	15	12	17	18	19	16	18	17	19	N. Dak.
7 431	2 925	6 971	2 720	3	3	2	3	3	3	3	3	3	4	Ohio
2 360	894	2 078	769	5	5	5	6	7	6	6	6	5	6	Okla.
1 334	437	1 289	406	9	9	9	12	9	11	10	11	11	12	Oreg.
9 307	3 592	8 937	3 357	2	2	2	3	3	3	2	3	3	3	Pa.
554	219	571	213	12	12	13	16	12	15	13	15	13	16	R.I.
1 981	823	1 943	835	6	5	6	7	6	6	6	6	7	7	S.C.
377	167	397	174	18	18	16	15	19	19	18	19	21	19	S. Dak.
3 281	1 247	3 216	1 179	5	5	5	8	8	6	6	6	6	8	Tenn.
13 115	5 235	12 292	4 892	2	2	2	3	2	2	3	3	3	3	Tex.
1 281	469	1 317	472	8	9	8	11	8	10	9	11	9	11	Utah
449	213	408	201	12	12	13	16	11	13	13	13	14	14	Vt.
3 986	1 691	3 776	1 650	4	4	4	5	4	5	4	5	4	5	Va.
2 736	937	2 625	874	5	5	5	6	5	6	5	6	5	7	Wash.
661	259	812	222	9	9	10	14	10	12	11	11	8	10	W. Va.
3 304	1 297	3 100	1 184	5	5	5	7	6	8	6	6	4	6	Wis.
302	111	244	86	10	10	10	17	8	13	9	13	11	17	Wyo.

**Table 10. Construction Receipts for Establishments With Payroll by Location of Construction Work: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1982					1977 construction receipts for work done in this State	Percent change 1982/ 1977 (col A ÷ F)	Relative standard error of estimate (percent) for column—		
	Construction receipts for work done in this State	Construction work done by establishments located in this State		Construction work done by establishments not located in this State						
		Number	Construction receipts	Number	Construction receipts					
A	B	C	D	E	F	G	A	C	E	
United States -----	9 838 510	20 641	8 705 239	4 372	1 131 271	8 200 390	58.6	1	1	1
Alabama -----	102 604	318	90 886	70	11 717	67 353	52.3	6	7	15
Alaska -----	44 273	49	40 285	18	3 988	25 102	76.4	7	8	18
Arizona -----	162 221	263	135 657	41	28 563	72 954	122.4	5	8	7
Arkansas -----	75 314	134	49 302	59	28 012	40 061	88.0	8	9	3
California -----	1 030 175	2 080	1 012 602	74	17 573	820 096	25.6	2	2	8
Colorado -----	210 904	368	173 805	81	37 098	91 450	130.8	4	5	4
Connecticut -----	138 111	323	125 758	83	12 352	83 757	64.9	5	8	8
Delaware -----	36 538	53	27 397	34	9 140	27 644	32.2	9	10	15
District of Columbia -----	63 140	*15	17 190	82	45 950	19 489	224.0	4	5	5
Florida -----	871 520	1 526	831 552	133	39 968	280 433	139.5	3	3	3
Georgia -----	211 957	411	178 561	133	33 396	102 826	106.1	7	6	21
Hawaii -----	58 848	114	52 644	14	6 204	31 934	84.3	8	8	18
Idaho -----	35 464	76	25 441	49	10 022	23 374	51.7	7	9	14
Illinois -----	633 220	988	591 659	205	41 560	429 458	47.4	2	2	3
Indiana -----	234 166	489	201 484	189	32 882	167 743	39.6	4	4	10
Iowa -----	122 984	295	107 881	102	15 102	100 247	22.7	6	7	11
Kansas -----	84 560	205	62 490	79	22 069	74 145	14.0	5	7	6
Kentucky -----	103 909	258	70 297	144	33 611	62 105	67.3	5	6	4
Louisiana -----	165 887	325	142 408	43	23 479	73 593	125.4	3	4	3
Maine -----	39 741	85	30 123	31	9 617	28 481	39.5	8	10	18
Maryland -----	173 396	388	144 563	113	28 832	118 678	46.1	4	5	6
Massachusetts -----	245 267	513	197 333	185	47 933	114 244	114.7	4	5	7
Michigan -----	387 743	666	355 582	81	32 180	300 053	29.2	2	3	2
Minnesota -----	191 390	281	178 157	77	13 232	120 031	59.5	3	3	8
Mississippi -----	52 398	133	34 771	76	17 628	42 727	22.6	9	13	8
Missouri -----	217 049	419	181 045	118	36 003	139 710	55.4	4	4	8
Montana -----	30 362	81	24 807	30	5 555	14 421	110.5	10	13	18
Nebraska -----	82 279	157	70 668	85	11 810	43 619	88.6	8	8	12
Nevada -----	47 827	90	40 104	30	7 722	41 866	14.2	6	7	1
New Hampshire -----	33 675	77	26 545	88	7 130	21 337	57.8	9	12	14
New Jersey -----	297 352	765	255 784	141	41 568	196 322	51.5	3	3	3
New Mexico -----	58 564	105	42 597	53	15 967	35 417	65.4	8	7	13
New York -----	621 426	1 364	566 848	128	54 578	331 745	87.3	3	3	4
North Carolina -----	186 296	548	169 750	94	18 548	123 381	51.0	4	5	8
North Dakota -----	37 067	57	31 368	20	5 699	18 839	96.8	8	9	2
Ohio -----	441 819	1 023	387 788	125	54 030	329 837	34.0	2	3	3
Oklahoma -----	134 915	233	124 132	60	10 783	66 616	102.5	8	7	7
Oregon -----	79 693	278	73 626	63	6 066	87 029	-8.4	8	9	10
Pennsylvania -----	478 655	1 246	431 367	193	47 287	348 787	37.2	3	3	3
Rhode Island -----	34 434	106	25 520	71	8 913	24 071	43.1	8	10	18
South Carolina -----	90 321	217	71 929	114	18 392	53 744	68.1	5	6	5
South Dakota -----	16 450	41	14 830	21	1 619	14 443	13.9	17	19	1
Tennessee -----	172 081	371	135 530	115	36 551	93 218	84.6	4	5	3
Texas -----	709 641	1 247	679 021	97	30 619	344 837	105.8	2	2	10
Utah -----	59 891	151	58 239	*9	1 651	50 520	18.5	7	8	(W)
Vermont -----	27 002	48	20 312	28	6 889	9 843	174.3	10	12	9
Virginia -----	223 547	491	176 267	201	47 279	124 404	79.7	3	4	4
Washington -----	238 672	509	207 823	73	31 048	143 739	66.0	3	4	3
West Virginia -----	39 481	92	29 021	77	10 460	38 736	1.9	6	7	9
Wisconsin -----	171 799	556	166 563	75	5 235	167 968	2.3	4	4	5
Wyoming -----	30 455	40	16 120	75	14 335	18 183	67.5	7	11	12



**Table 11. All Business Receipts for Establishments With Payroll by Kind of Business Activity: 1982 and 1977**

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	All business receipts		Relative standard error of estimate (percent)	
	1982	1977	1982	1977
<b>All kinds of business</b> .....	<b>10 033 533</b>	<b>8 320 693</b>	<b>1</b>	<b>1</b>
General building contractor .....	12 895	117 818	5	5
Acoustical contractor .....	14 072	14 319	4	3
Air conditioning contractor .....	113 604	137 174	2	2
Carpentry contractor .....	52 310	27 004	5	6
Floor covering contractor, except wood .....	4 005	7 581	11	4
Glass and glazing contractor .....	11 423	13 918	15	3
Heating contractor .....	95 405	114 705	2	2
Insulation contractor .....	73 843	46 751	4	8
Masonry contractor, other than brickwork .....	7 379	9 206	8	29
Painting contractor .....	14 744	8 359	12	8
Plumbing contractor .....	52 272	28 678	2	2
Refrigeration contractor .....	7 252	9 721	9	3
Residential remodeling contractor .....	54 739	26 758	6	9
Roofing contractor .....	5 334 935	3 120 441	1	1
Sheet metal contractor .....	2 665 496	1 605 270	1	1
Siding contractor .....	678 458	586 656	3	3
Structural steel erection contractor .....	16 399	12 424	9	4
Waterproofing, dampproofing, and fireproofing contractor .....	52 848	32 472	2	10
Manufacturing .....	24 433	28 709	3	3
Retail trade .....	36 843	32 518	4	3
Wholesale trade .....	24 921	36 148	7	2
Other activities .....	685 257	304 263	19	8

**Table 12. Profile of Establishments With Payroll In This Industry: 1982 and Earlier Census Years**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1982	1977	1972	Relative standard error of estimate (percent) for 1982
<b>AVERAGE PER ESTABLISHMENT</b>				
Number of employees**	9.1	8.4	8.5	1
Number of construction workers	7.5	7.1	7.2	1
Number of all other employees	1.5	1.2	1.3	1
Payroll, all employees	\$1,000 143.5	95.6	75.8	(W)
Construction worker wages	do 109.7	75.6	81.4	1
Other employee salaries	do 33.8	20.1	14.5	1
All business receipts	do 474.4	307.2	215.8	1
Total construction receipts	do 465.0	301.3	212.6	1
Payments for materials, components, supplies, and fuels	do 191.6	128.2	79.0	1
Construction work subcontracted to others	do 24.8	12.7	10.2	1
Capital expenditures, other than land	do 7.5	6.4	3.7	2
Gross book value of depreciable assets	do 85.9	39.6	26.4	1
<b>AVERAGE PER EMPLOYEE</b>				
Payroll, all employees	do 15.9	11.5	8.9	(W)
All business receipts	do 52.4	36.8	25.3	1
Value added††	do 28.5	19.9	14.9	1
<b>AVERAGE PER CONSTRUCTION WORKER</b>				
Construction worker wages	do 14.6	10.6	8.5	1
Total construction receipts	do 81.9	42.4	29.4	1
Construction worker hours	thousand 1.5	(NA)	(NA)	1
<b>AVERAGE PER OTHER EMPLOYEE</b>				
Other employee salaries	\$1,000 22.0	16.7	11.0	1
<b>AVERAGE PER DOLLAR OF TOTAL CONSTRUCTION RECEIPTS</b>				
Payroll, all employees	.310	.317	.357	(W)
Payments for materials, components, supplies, and fuels	.410	.426	.372	1
Payments for construction work subcontracted to others	.050	.042	.048	1
Capital expenditures, other than land	.020	.021	.017	2
Rental payments for machinery, equipment, and structures	.010	.008	(NA)	1

**Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker (thousands)	Total construction receipts per construction worker (\$1,000)	Average per dollar of total construction receipts				
					Payroll, all employees	Payments for materials, components, supplies, and fuels	Payments for construction work sub-contracted to others	Capital expenditures, other than land	Rental payments for machinery, equipment, and structures
<b>United States .....</b>	<b>9.1</b>	<b>15.8</b>	<b>1.5</b>	<b>61.9</b>	<b>.309</b>	<b>.412</b>	<b>.053</b>	<b>.016</b>	<b>.011</b>
Alabama .....	10.3	11.1	1.5	44.2	.310	.422	.046	.014	.007
Alaska .....	10.9	21.2	1.0	92.4	.282	.415	.046	.017	.006
Arizona .....	10.2	13.7	1.4	61.9	.273	.447	.054	.028	.014
Arkansas .....	9.1	13.3	1.5	57.7	.276	.425	.044	.013	.008
California .....	8.8	18.3	1.2	67.8	.291	.428	.038	.013	.014
Colorado .....	9.4	15.0	1.3	60.6	.291	.458	.050	.019	.013
Connecticut .....	8.1	17.2	1.4	69.1	.300	.394	.069	.017	.011
Delaware .....	15.3	17.1	1.8	59.7	.331	.390	.026	.028	.008
District of Columbia .....	15.0	22.0	1.6	57.2	.433	.258	.023	.001	.018
Florida .....	9.7	13.1	1.6	52.7	.299	.442	.043	.017	.010
Georgia .....	12.0	12.8	1.4	49.1	.296	.462	.047	.019	.011
Hawaii .....	8.3	17.3	1.4	79.4	.311	.400	.052	.020	.025
Idaho .....	6.8	14.2	1.2	64.7	.255	.416	.057	.011	.020
Illinois .....	10.5	21.0	1.5	75.3	.345	.353	.072	.015	.011
Indiana .....	9.1	18.3	1.5	62.0	.355	.390	.036	.013	.008
Iowa .....	11.7	18.5	1.5	73.8	.315	.361	.102	.011	.015
Kansas .....	8.1	15.9	1.4	60.2	.330	.426	.045	.020	.017
Kentucky .....	8.9	15.5	1.4	57.2	.339	.377	.044	.022	.012
Louisiana .....	10.5	14.6	1.5	48.8	.340	(D)	.044	.016	.010
Maine .....	8.0	13.4	1.7	53.8	.292	.466	.026	.020	.007
Maryland .....	11.3	14.8	1.5	54.0	.326	.410	.043	.019	.013
Massachusetts .....	8.4	14.8	1.5	61.3	.293	.406	.059	.017	.013
Michigan .....	9.1	18.6	1.4	77.6	.296	.372	.060	.016	.009
Minnesota .....	10.6	21.3	1.5	79.3	.336	.376	.051	.014	.010
Mississippi .....	8.5	10.1	1.3	39.9	.294	.454	.027	.010	.003
Missouri .....	9.4	16.4	1.3	64.9	.313	.405	.069	.017	.011
Montana .....	8.4	19.0	1.5	77.5	.300	.411	.036	.016	.012
Nebraska .....	9.3	19.0	1.5	85.9	.275	.395	.124	.013	.010
Nevada .....	7.7	18.6	1.2	75.4	.294	.431	.017	.017	.019
New Hampshire .....	8.2	14.1	1.6	64.8	.283	.474	.045	.010	.019
New Jersey .....	7.8	15.8	1.4	58.9	.315	.399	.043	.012	.009
New Mexico .....	9.7	12.4	1.5	51.2	.287	.461	.032	.020	.016
New York .....	7.9	16.6	1.5	68.0	.298	.389	.083	.018	.011
North Carolina .....	9.4	10.9	1.8	44.2	.286	.478	.035	.015	.010
North Dakota .....	8.1	15.7	1.6	87.4	.212	.488	.053	.016	.008
Ohio .....	7.8	18.1	1.5	68.1	.324	.402	.069	.018	.011
Oklahoma .....	11.0	14.2	1.4	57.9	.282	.449	.035	.016	.010
Oregon .....	5.6	15.0	1.2	62.1	.303	.421	.038	.021	.014
Pennsylvania .....	8.1	17.2	1.5	64.8	.327	.432	.033	.014	.010
Rhode Island .....	8.2	14.8	1.5	54.9	.315	.414	.045	.005	.005
South Carolina .....	10.7	11.1	1.6	43.9	.293	.483	.035	.016	.006
South Dakota .....	10.2	15.0	1.6	54.7	.327	.464	.045	.005	.007
Tennessee .....	9.3	13.6	1.4	49.6	.316	.445	.035	.020	.010
Texas .....	11.7	15.2	1.6	57.2	.308	.414	.065	.019	.010
Utah .....	9.2	14.5	1.4	56.5	.298	.502	.033	.014	.014
Vermont .....	9.4	17.1	1.9	57.7	.358	(D)	.046	.031	.008
Virginia .....	9.4	12.2	1.6	50.0	.293	.459	.039	.022	.012
Washington .....	8.4	19.0	1.3	84.9	.286	.352	.043	.018	.013
West Virginia .....	7.8	16.4	1.4	57.2	.331	.363	.021	.006	.005
Wisconsin .....	8.2	16.9	1.5	61.7	.330	.409	.044	.016	.011
Wyoming .....	8.8	17.8	1.4	68.9	.319	.421	.151	.007	.016



# APPENDIX A.

## Explanation of Terms

**Construction**—Is composed of three broad categories: (1) new construction, (2) additions and alterations, and (3) maintenance and repair. "New construction" includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators and escalators. "Additions and alterations" includes construction activity making structural changes to existing facilities. "Maintenance and repair" includes the restoration of existing buildings or other structures or their service facilities, including the replacement of integral parts. Repainting, repapering, reroofing, etc., are also included.

Construction includes:

- special trade contracting such as electrical work, painting, and carpentering on mobile structures (trailers, mobile homes, and ships).
- support activities by construction contractors on mineral properties, except the following: sinking mine shafts; tunneling and shoring mines; erection, repairing and dismantling of drilling rigs; and building well foundations.
- the physical development of land for purposes other than agriculture.
- demolition of existing structures.

Construction does not include:

- shipbuilding.
- manufacturing of other mobile structures.

**Number of establishments in business during year**—Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

**Number of establishments in business at end of year**—Includes all full-year or part-year establishments that were in business at the end of 1982.

**Proprietors and working partners**—These data were not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners. The partnership factor was based on information received during a large-scale test conducted in prior years.

**All employees**—Comprised all full-time and part-time employees on the payrolls of construction establishments who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid-sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are excluded.

Total employment is calculated for each establishment and is derived by summing the construction workers data reported for March, May, August, and November, dividing by 4 and adding to it the number of other employees reported for March.

This approach was designed to simplify the questionnaire format and the reporting requirements of respondents. The industry average of these four selected pay periods approximates very closely the average employment for the year that would be obtained by using pay periods in all 12 months for almost all of the construction industries.

**Construction workers**—Includes all workers up through the working supervisor level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment operators, and on-site record keepers and security guards. Supervisory employees above the working supervisor level are excluded from this category but are included in the "other employees" category.

**Other employees**—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working supervisor level.

**Construction worker hours**—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1982 and are published in the detailed statistics tables.

**Payroll**—Includes the gross earnings paid in the calendar year 1982 to all employees on the payroll of construction establishments. It includes all forms of compensation, such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick-leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

Payroll data were collected and tabulated for the employment categories described above and separately for the first quarter of 1982.

Payroll data for auxiliary establishments of multiestablishment companies are not included in these totals. Selected data for these types of establishments are found in the industry summary report and the 1982 Enterprise Statistics reports.

**Employer costs for fringe benefits**—Represents expenditures made by the employer during 1982 for legally required and voluntary fringe benefit programs for employees. These include employers' Social Security contributions, unemployment compensation, workers' compensation, State temporary disability payments, union negotiated benefits, life insurance premiums, pension plans, insurance premiums on hospital and medical plans, and welfare plans.



**All business receipts**—Includes all receipts from general contracting, special trade contracting or subcontracting, and land development and improvement work. It also includes all receipts from the sale of land (not recorded as fixed assets of the reporting establishments) and buildings built for sale. All other receipts from the reporting establishment's other business operations (rental of equipment to others, wholesale or retail sales, etc.) are also included.

Money obtained during the year in the form of construction loans is not treated as receipts, nor is money realized from the sale or other disposition of the establishment's fixed assets.

Also excluded are receipts from operations in foreign countries and nonoperating income such as interest and dividends.

All business receipts are broken down in the following detail:

**Total construction receipts**—Includes all receipts during 1982 for construction work performed by general contractors, special trades contractors or subcontractors, and for land development and improvement work. Included are receipts for maintenance and repair construction work, as well as for new construction and additions and alterations. Also included is the value of any construction work done by the reporting establishments for themselves.

Builders were instructed to include in this item their 1982 receipts from the sale of buildings and other structures built for sale, excluding from these receipts the value of the land (see "land receipts" below) but including the value of any improvements an establishment made to the land. Builders who traded a new home or other building for an existing one were to include the estimated value of the trade-in.

Also included in construction receipts were fees received as sponsors of joint ventures and fees received as agents for owners (for construction work).

Excluded were receipts for separately definable architectural and engineering work done by the reporting establishment for others and receipts from the rental of equipment to others (see "other business receipts" below).

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies for construction purposes were instructed to include as construction receipts both the receipts for the installation and the receipts for the value (selling price) of the items installed. (Receipts for the selling price of items sold but not installed were to be included in "other business receipts.")

**Receipts for work subcontracted in from others**—Covers receipts during 1982 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total construction receipts accounted for by such work, and the percentages reported were applied to the reported construction receipts to develop a value for this item.

**Land receipts**—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in construction receipts.)

**Other business receipts**—Includes business receipts not reported as construction receipts or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

**Net construction receipts**—Derived for each establishment by subtracting the payments made for construction work subcontracted to others from the total construction receipts. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

**Value added**—Derived for each establishment, value added is equal to all business receipts, less payments for construction work subcontracted to others and payments for materials, components, supplies, and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, value added is modified to be equal to all business receipts less land receipts; payments for construction work subcontracted to others; and payments for materials, components, supplies, and fuels. (For a further explanation, see "Duplication of Receipts" section in the Introduction.)

**Selected payments**—Represents the total of payments for materials, components, and supplies; payments for construction work subcontracted to others; and payments for selected power, fuels, and lubricants. Capital expenditures and rental payments for machinery, equipment, and structures are shown elsewhere.

Payments for materials, components, and supplies include:

- total payments made by the reporting establishments during 1982 for the purchase of all materials, components, and supplies, except fuels, used for construction. (Supplies include expendable tools charged to current accounts.)
- freight and other direct charges incurred by the reporting establishment in acquiring the materials, components, and supplies are also included, as are the value of materials, components, and supplies obtained from other establishments of the respondent's company. Payments represent the amount paid after discounts.
- payments for materials, components, and supplies used by the reporting establishments in the construction of new plants or equipment for themselves, which are chargeable to their fixed assets accounts, are included in this item as are payments for materials bought and resold to others.
- payments made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.



Payments for materials, components, and supplies include only payments for physical goods and represent the amount paid after discounts.

Excluded from this item are:

- services such as advertising, telephone, telegraph and cable, insurance, developmental and research services of engineering, management, marketing, and other professional consultants, unless their costs are included in the prices paid for materials.
- overhead items such as depreciation charges against plant and equipment, rent and rental allowances, interest payments, royalties, patent fees, payments for land, rental of construction machinery or equipment, and construction work let out to other construction contractors.
- materials furnished to contractors by the owners of projects.

Payments for construction work subcontracted to others include:

- all payments made during 1982 for construction work subcontracted out to other construction contractors. General contractors were instructed to include payments to subcontractors. Builders were instructed to include payments made to general contractors and also payments made directly to subcontractors.
- special trade contractors were instructed to include payments made to other subcontractors. The payments made by the reporting establishment for its purchases of materials, components, and supplies are not included here, even if they were provided to a subcontractor for his use. Such purchases are reported under a separate category, "payments for materials, components, and supplies." However, if payments to subcontractors covered materials purchased directly by the subcontractors, then the total of such payments (including material charges) should have been reported in this item.

Excluded from this item are:

- payments made for the rental of construction machinery or equipment.

Payments for selected power, fuels, and lubricants include:

- payments made for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the parent company.
- payments made for natural and manufactured gas, fuel oil, coal and coke products, etc.

Dollar amounts include freight and other direct charges.

**Storage capacity for fuels**—Data for storage capacity for fuels were collected from heavy construction contractors, other than building construction contractors. Data are published in the detailed statistics tables for the heavy construction industries, i.e., SIC 1611, SIC 1622, SIC 1623, and SIC 1629.

**Rental payments for machinery, equipment, and structures**—Includes all payments made during 1982 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It excludes payments for the rental of land. It also excludes payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized. Such payments are included in "capital expenditures." It also excludes payments made under agreements which, in effect, are true subcontract construction arrangements; such payments are included in payments for "construction work subcontracted to others."

**Selected purchased services**—Includes all payments made during 1982 for communication services purchased from other companies or from other establishments of the parent company. It also includes the cost of all repairs made to structures and equipment by outside firms, or from other establishments of the parent companies. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increases the value of property, or the cost of adapting it for another use.

**Fixed assets and depreciation**—Refers to the value of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on fixed assets and depreciation were collected separately for: (1) structures, additions, and related facilities; (2) machinery and equipment; and (3) the total of both.

Respondents were asked to report the gross book value-acquisition cost (original cost or other basis) at the beginning and at the end of 1982. They were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1982.

**Capital expenditures**—Refers to all costs actually incurred during 1982 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment. Included are payments made under agreements which, in effect, are conditional sales contracts and which, as a result, are capitalized.

Respondents were instructed not to include any expenditures actually made prior to, or after 1982. For example, if they began construction of a building for an establishment's own use before 1982 and did not complete it until after 1982, they were to report only those costs actually incurred during 1982.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.



- **New structures and related facilities**—Includes the total expenditures during 1982 for new buildings and structures, major additions and alterations to buildings and structures, and other facilities for the reporting establishment's use (such as roads, docks, tracks, parking lots, and fences). It excludes expenditures for land.
- **New machinery and equipment**—Includes expenditures for new machinery and new equipment. This item also includes capitalized repairs and improvements to used machinery and equipment.
- **New automobiles and trucks intended primarily for highway use**—Includes expenditures for new automobiles and trucks and capitalized repairs and improvements to used automobiles and trucks.
- **Used structures and related facilities**—Covers expenditures for used structures and related facilities acquired from others.
- **Used machinery and equipment**—Includes expenditures for used machinery and equipment acquired from others, including automobiles and trucks. Capitalized repairs and improvements to such equipment are reported as new machinery and equipment.

**Value of inventories**—Includes all of the materials and supplies that are owned and located within the United States. Excludes materials which are owned by others, but held by the reporting establishment.

Inventories of multiestablishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

**Establishments building structures on their own land for sale (operative builders)** were instructed to include the value of materials on hand at the end of the year but not to include the structures not yet sold or under construction.

Land subdividers and developers were instructed to include the value of materials on hand at the end of the year, but not include land not yet sold or under construction.

**Ownership of construction projects**—This item shows the distribution of construction receipts by ownership of the project—Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken and not to the financing. Government owned projects cover those owned by the Federal, Commonwealth, or local governments including public authorities and special districts.

**Types of construction**—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1982. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. However, complex projects consisting of two or more types of buildings, structures, or other facilities are difficult to classify because sufficient information is seldom available. Therefore, respondents were told to classify complex projects by the major function of the total complex.

In addition, heavy construction contractors and special trade contractors were requested to report the percentage of construction receipts derived from new construction work, including additions and alterations, and from maintenance and repair work for each of these types. General building contractors were requested to report the percentage of construction receipts derived from new construction work, from additions and alterations, and from maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of new construction, additions and alterations, and maintenance and repair.

#### Building construction:

- **Single-family houses, detached**—Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (includes townhouses)**—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken party or lot line wall from ground to roof.
- **Apartment buildings with two or more apartments**—Includes high-rise, low-rise, or any structures other than containing two or more housing units.
- **Other residential buildings**—Includes hotels, motels, dormitories, and other nonhousekeeping residential structures.
- **Bank buildings and other financial institutions**—Includes all buildings which are used primarily to house banks or other financial institutions.
- **Warehouses**—Includes commercial warehouses, cold storage plants, grain elevators, miniwarehouses, and other storage buildings.
- **Farm buildings, nonresidential**—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Industrial buildings**—Includes all industrial buildings and plants which are used to house production and assembly activities. Note that heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are NOT included in this category, but are shown under nonbuilding construction.
- **Office buildings**—Includes all buildings which are used primarily for office space or for government administrative offices.
- **Other commercial buildings such as stores, restaurants, and automobile service stations**—Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, complete shopping centers, department stores, drug stores, restaurants, public garages, and auto service stations.
- **Religious buildings**—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.



- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social, and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes buildings which are not classified elsewhere, such as fire stations, bus and air passenger terminals, hangars, etc.

Nonbuilding construction:

- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Elevated highways**—Includes roads, highways, and causeways built on structural supports.
- **Bridges**—Includes viaducts, trestles, and overpasses.
- **Tunnels**—Includes highway, pedestrian, and railway tunnels, etc.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.

- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, dikes, and levees.
- **Power and communication transmission lines, towers, and related facilities**—Includes telephone and telegraph lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.
- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.

**Location of construction work**—This item includes data for each State in which respondents engaged in construction work and the extent (percent of construction receipts) of that work.





# APPENDIX B. Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
<b>15</b>	<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>	<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.</b>
<b>152</b>	<b>General Building Contractors—Residential Buildings</b>	<b>173</b>	<b>Electrical Work Special Trade Contractors</b>
<b>1521</b>	General Contractors—Single-Family Houses	<b>1731</b>	Electrical Work Special Trade Contractors
<b>1522</b>	General Contractors—Residential Buildings, Other Than Single-Family Houses	<b>174</b>	<b>Masonry, Stonework, Tile Setting, and Plastering Special Trade Contractors</b>
<b>153</b>	<b>Operative Builders</b>	<b>1741</b>	Masonry, Stone Setting, and Other Stonework Special Trade Contractors
<b>1531</b>	Operative Builders	<b>1742</b>	Plastering, Drywall, Acoustical and Insulation Work Special Trade Contractors
<b>154</b>	<b>General Building Contractors—Nonresidential Buildings</b>	<b>1743</b>	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
<b>1541</b>	General Contractors—Industrial Buildings and Warehouses	<b>175</b>	<b>Carpentering and Flooring Special Trade Contractors</b>
<b>1542</b>	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	<b>1751</b>	Carpentering Special Trade Contractors
<b>16</b>	<b>CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—GENERAL CONTRACTORS</b>	<b>1752</b>	Floor Laying and Other Floorwork Special Trade Contractors, N.E.C.
<b>161</b>	<b>Highway and Street Construction, Except Elevated Highways</b>	<b>176</b>	<b>Roofing and Sheet Metal Work Special Trade Contractors</b>
<b>1611</b>	Highway and Street Construction Contractors	<b>1761</b>	Roofing and Sheet Metal Work Special Trade Contractors
<b>162</b>	<b>Heavy Construction, Except Highway and Street Construction</b>	<b>177</b>	<b>Concrete Work Special Trade Contractors</b>
<b>1622</b>	Bridge, Tunnel, and Elevated Highway Construction Contractors	<b>1771</b>	Concrete Work Special Trade Contractors
<b>1623</b>	Water, Sewer, Pipe Line, Communication and Power Line Construction Contractors	<b>178</b>	<b>Water Well Drilling Special Trade Contractors</b>
<b>1629</b>	Heavy Construction Contractors, N.E.C.	<b>1781</b>	Water Well Drilling Special Trade Contractors
<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS</b>	<b>179</b>	<b>Miscellaneous Special Trade Contractors</b>
<b>171</b>	<b>Plumbing, Heating (Except Electric), and Air Conditioning Special Trade Contractors</b>	<b>1791</b>	Structural Steel Erection Special Trade Contractors
<b>1711</b>	Plumbing, Heating (Except Electric), and Air Conditioning Special Trade Contractors	<b>1793</b>	Glass and Glazing Work Special Trade Contractors
<b>172</b>	<b>Painting, Paper Hanging, and Decorating Special Trade Contractors</b>	<b>1794</b>	Excavating and Foundation Work Special Trade Contractors
<b>1721</b>	Painting, Paper Hanging, and Decorating Special Trade Contractors	<b>1795</b>	Wrecking and Demolition Work Special Trade Contractors
		<b>1796</b>	Installation or Erection of Building Equipment Special Trade Contractors, N.E.C.
		<b>1799</b>	Special Trade Contractors, N.E.C.
		<b>6552</b>	<b>SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES</b>





# **APPENDIX C.**

## **Geographic Divisions and States**

### **NEW ENGLAND STATES**

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

### **MIDDLE ATLANTIC STATES**

New Jersey  
New York  
Pennsylvania

### **EAST NORTH CENTRAL STATES**

Illinois  
Indiana  
Michigan  
Ohio  
Wisconsin

### **WEST NORTH CENTRAL STATES**

Iowa  
Kansas  
Minnesota  
Missouri  
Nebraska  
North Dakota  
South Dakota

### **SOUTH ATLANTIC STATES**

Delaware  
District of Columbia  
Florida  
Georgia  
Maryland

### **SOUTH ATLANTIC STATES—Con.**

North Carolina  
South Carolina  
Virginia  
West Virginia

### **EAST SOUTH CENTRAL STATES**

Alabama  
Kentucky  
Mississippi  
Tennessee

### **WEST SOUTH CENTRAL STATES**

Arkansas  
Louisiana  
Oklahoma  
Texas

### **MOUNTAIN STATES**

Arizona  
Colorado  
Idaho  
Montana  
Nevada  
New Mexico  
Utah  
Wyoming

### **PACIFIC STATES**

Alaska  
California  
Hawaii  
Oregon  
Washington





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- ☐ Corrections (if there are any) for this publication— **Construction Industries, Roofing and Sheet Metal Work Special Trade Contractors, CC82-I-18**

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- ☐ Guide to the 1982 Economic Censuses and Related Statistics
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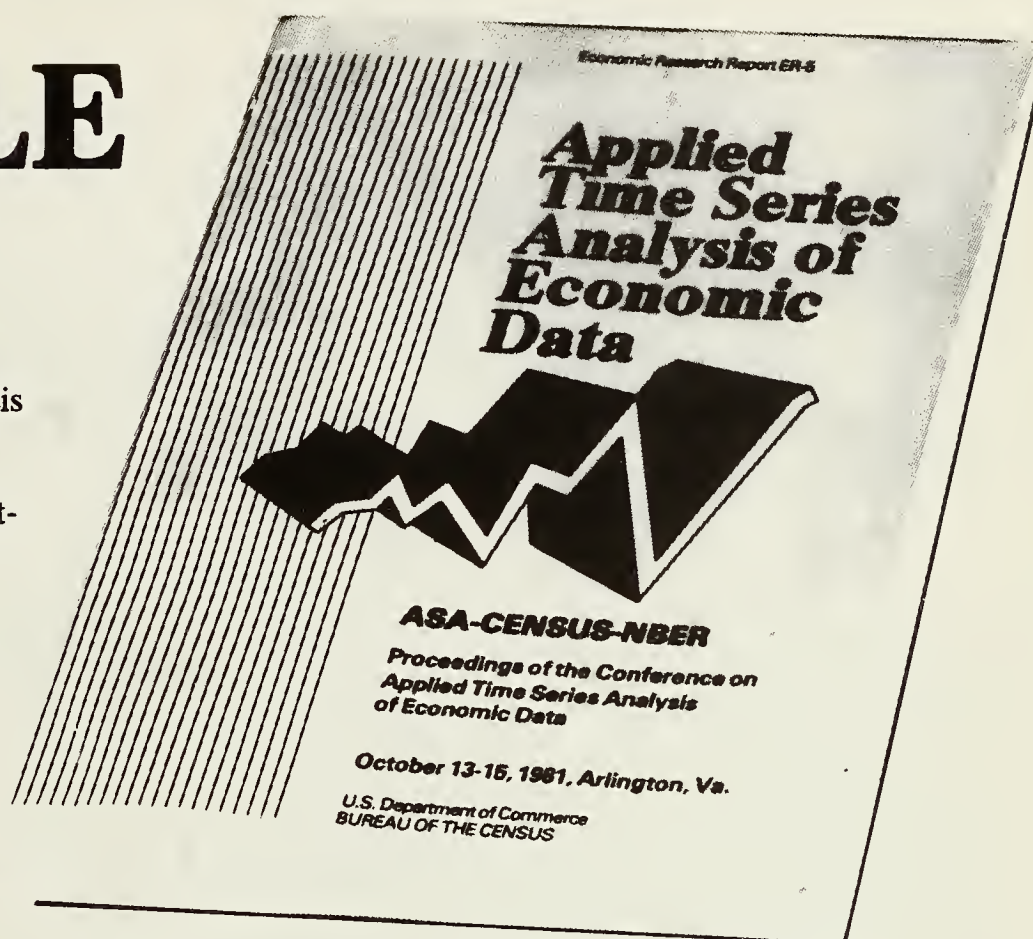


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Name	Year
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John Adams	1797
Thomas Jefferson	1801
James Madison	1809
James Monroe	1817
John Quincy Adams	1825
Andrew Jackson	1829
Martin Van Buren	1837
William Henry Harrison	1841
John Tyler	1845
Polk	1846
Fillmore	1850
Buchanan	1857
Lincoln	1861
Andrew Johnson	1865
Ulysses S. Grant	1869
Rutherford B. Hayes	1877
James A. Garfield	1881
Chester A. Arthur	1881
Grover Cleveland	1885
Benjamin Harrison	1889
William McKinley	1897
Theodore Roosevelt	1901
William Howard Taft	1909
Woodrow Wilson	1913
Warren G. Harding	1921
Calvin Coolidge	1923
Herbert Hoover	1929
Franklin D. Roosevelt	1933
Dwight D. Eisenhower	1953
John F. Kennedy	1961
Lyndon B. Johnson	1963
Richard M. Nixon	1969
Jimmy Carter	1977
Ronald Reagan	1981
George H. W. Bush	1989
Bill Clinton	1993
George W. Bush	2001
Barack Obama	2009
Mit Romney	2012



# PUBLICATION PROGRAM

## 1982 CENSUS OF CONSTRUCTION INDUSTRIES

Publications of the 1982 Census of Construction Industries, containing data on construction establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

### Preliminary Reports

Preliminary data from the 1982 census have been issued in 27 industry reports and 1 summary report. These reports are superseded by more detailed final reports.

### Final Reports

Final detailed statistics are issued in separate paperbound reports.

### Industry series—28 reports (CC82-I-1 to -28)

Industry series—27 reports (CC82-I-1 to -27). These reports present data for establishments with payroll and are published for each of the 27 industries included in the census. Each industry report presents 1982 data by State and for the United States on number of construction establishments; receipts; employment; hours worked; payrolls; payments to subcontractors; payments for materials, components, and supplies; payments for power and fuels; payments for selected purchased services; payments for the rental of machinery, equipment, and structures; value added; capital expenditures during the year; and depreciable assets. Limited data for 1977, 1972, and 1967 are also shown. In addition, more detailed data are shown at the U.S. level on construction receipts by type of structure (single-family houses, streets, roads, etc.). Selected data also are provided for establishments classified by their employment size and receipts size.

U.S. Summary—1 report (CC82-I-28). This report summarizes the data for establishments with payroll presented in the 27 individual industry reports and presents limited data for establishments with no payroll.

### Geographic area series—10 reports (CC82-A-1 to -10)

Division reports (CC82-A-1 to -9). These reports are published for States grouped according to the nine census geographic divisions. Much of the geographic area series data are the same as presented in the

industry series, except here they are organized by State rather than by industry. Similar data also are presented for selected SMSA's. Data are provided for establishments classified by their employment size and receipts size. Data for establishments with no payroll as well as comparative 1977, 1972, and 1967 figures, on a limited basis, also are shown.

U.S. Summary by State (CC82-A-10). This report summarizes the data, as presented in the nine individual geographic division reports, for establishments with and without payroll.

### Special series—1 report (CC82-SP-1)

Legal form of organization and type of operation (CC82-SP-1)—This report presents limited data (number of establishments, number of proprietors and working partners, total employment, and total receipts) for construction establishments without payroll, for construction establishments with payroll, and for the aggregate, classified by industry and by legal form of organization. It also contains selected statistics (number of establishments, employment, payrolls, receipts, payments to subcontractors, net construction receipts, and value added) for construction establishments with payroll, classified by industry and by type of operation (multiunit or single-unit) and by legal form of organization.

### Final Report Volume

Final paperbound reports subsequently are assembled and reissued in one clothbound volume.

### Microfiche

All published data also are available on microfiche.

## OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, manufactures, enterprise statistics, minority-owned businesses, women-owned businesses, and transportation also are issued as part of the 1982 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. All published reports and microfiche are sold by the Superintendent of Documents, U.S. Government Printing Office. Appropriate announcements and order forms describing these products are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, D.C. 20233.

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